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THE FLORA OF AMARKANTAK (MADHYA PRADESH)

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ABSTRACT

The paper deals with the flora of Phanerogams and Pteridophyte of Amarkantak plateau. Total number of species enumerated in this paper is 635 (Angiosperms 612, Gymnosperms 2 and Pteridophytes 21) of which 7 species are new for Central India and 14 for Madhya Pradesh.

INTRODUCTION

Amarkantak, one of the sacred places for the source of the river Narvada, is situated in 22°41′N and 81°46′E, on the eastern most extremity of Maikal Range. It is 104 kilometres by road from Shahdol which is on the Katni-Bilaspur section of the South-Eastern Railway.

At Amarkantak, the Vindhyas touch the Satpura range; the Maikal Hill is thus the place of union of the two mountain ranges and hence probably the name 'Maikal'. According to another Mythology the name 'Maikal' is derived from the name of a sage—'Maikal Rishi' who did penance in its forest clad ravines. In the local Mythology it is believed that when God 'Shiva' came for penance on the hill its name was 'Risabh'. In the 'Ramayana' it is named as 'Risabh'. During the period of Mahabharat, it was called 'Vanshgulm'. Kalidas in 'Meghdut' named it 'Amrakut'. Apparently, Amarankat appears to be the earlier correct name before it was misspelled as Amarkantak.

Amarkantak lies on a plateau at an altitude of approximately 1000 metres, from the four directions of which four rivers arise—namely, Son from east, Narvada from west, Jwalavanti (Johilla) from north and Mahanadi from south. The river Johilla joins the Son shortly after rising and flows towards north into Ganges. Another little stream the Arpa bubbles forth and shortly tumbles over the sheer cliff to the south and mingles with the great Mahanadi, which drains the plains of Chhattisgarh into the Bay of Bengal. Besides, few perennial streams (*nallah*), namely Barati nallah, Amanallah etc. flow in the area. Narvada flows in opposite direction, *i.e.* from east to west and pours its water into the Gulf of Cambay. Shortly after its place of origin, it flows into famous falls of Kapildhara, whenceforth it follows a tortuous and usually a rock-bound course.

Maikal Range runs in a south-westernly direction; towards the north, the slopes are gradual, but on the south the mountains fall abruptly, leaving a magnificent view over the foot hills. The whole area is hilly; the highest point being Damgarh (1102.27 m). Local topography and other physical features combine to produce a bewildering variety of edaphic conditions. Mountain slopes are intersected and much cut up by water courses and ravines. At places the ridges are steep and there are narrow valleys with cliffs, gorges and all sorts of exposures. The aspect vary considerably. The area, thus provides a variety of habitats.

GEOLOGY AND SOIL

Amarkantak has hills capped with bauxite and laterite products with underlying basalt (Deccan trap). Soils are typically shallow where the topography is steep but of fair depth on the flatter tops. Laterite is usual. The soil is ferruginous and clayey with more or less acidic and neutral reactions (*Misra* 1956).

CLIMATE

Table I records the temperature and rainfall data of the area based on records from observatory of Forest Research Centre, Amarkantak.

The mean annual temperature ranges from 21°-31°C; the January mean being about 21°C and the May temperature rising to about 31-33°C. May and June are the hottest months and December and January coldest months when the lowest temperature reaches to 1°C.

Rainfall is largely from S.-W. Monsoon. Maximum rainfall is from July to September. Winter

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rains occur in December and January. Total annual rainfall is over 1900 mm.

Frost occurs mainly in February causing great injury to the crop, so much so that even trees of sal are badly injured.

Table I: Climatological data

Month	Average Temperature (centigrade)		Average Rain fall (mm)
	Maximum	Minimum	
January	21.48	1.34	3.50
February	26.54	3.41	0.00
March	25.45	8.51	129.00
April	31.50	12.30	85.00
May	33.90	14.20	70.00
June	31.43	18.80	68.50
July	26.32	18.70	662.00
August	24.48	18.50	384.00
September	25.50	17.00	396.00
October	25.58	9.40	8.00
November	23.85	3.76	5.00
December	21.10	6.9	114.00
		TOTAL	1,915.00 mm

VEGETATION

The plateau carries subtropical vegetation. The forest type that occurs in the plateau is classified under 'Central Indian subtropical hill forests' (*Champion*, 1938). The vegetation has the following natural aspects:

Sal (Shorea robusta) Forests: Sal constitutes almost pure forests over considerable areas. The common associates are *Mallotus philippensis, Buchanania lanzan, Ougeinia oogeinensis, Terminalia chebula, Bauhinia* sp., *Grewia* spp., *Gardenia latifolia, Anogeissus latifolia,* etc. which support climbers like *Bauhinia vahlii, Discorea* spp., *Celastrus paniculatus, Smilax* sp. etc. The ground flora consists of *Desmodium* spp., *Moghania* spp., *Urena lobata, Plectranthus mollis, Sida* spp., *Crotalaria* spp., *Leucas* spp., *Pogostemon bengalensis, Leea* spp., *Strobilanthes* spp., *Oplismenus* spp., *Setaria* spp., etc.

Mixed forests of Valleys: In Valleys sal loses its dominance after certain altitude and is replaced by miscellaneous species *e.g. Bauhinia retusa, Grewia* spp., *Ficus* spp., *Rhamnus wightii, Bursera serrata, Schlechera oleosa, Schefflera venulosa* etc. The forests are rich in ground flora which is composed of *Triumfetta* spp., *Begonia picta, Sida* sp., *Pimpinella* spp., *Plectranthus mollis, Strobilanthes* spp., *Crotalaria* spp., *Oplismenus compositus, Setaria* spp. etc.

Mixed forests of open Areas: In open areas mixed forests of semi-deciduous nature occur. Important constituent species of this type are: *Butea monosperma, Lagerstroemia parviflora, Boswellia serrata, Gardenia latifolia, Anogeissus latifolia, Ficus* spp., *Lannea coromandelica, Garuga pinnata* etc.

Scrub: On exposed steep hill slopes and ridges, where drier conditions prevail scrub vegetation is found. *Euphorbia neriifolia, Zizyphus* spp., *Gardenia latifolia, Spermadictyon suaveolens* are the important constituent species of this type.

Grasslands: Open pastures extending in great tracts adjacent to the sal areas and along the banks of Narvada, are composed of *Coix lacryma-jobi, Coelachne simpliciuscula, Chionachne koenigii, Echinochloa stagnina, Eragrostiella bifaria, Eragrostis* spp., *Panicum* spp., *Paspalum* spp., *Sacciolepis indica, S. myosuroides, Spodiopogon rhizophorus* etc. in wet situations. Elsewhere the grasslands are composed of *Apluda mutica, Heteropogon contortus, Themeda* spp., *Bothriochloa glabra, B. pertusa, Dicanthium annulatum,* etc. Other species characteristic to the grasslands are: *Exacum tetragonum, Swertia angustifolia, Lavandula bipinnata, Sopubia delphinifolia, Crotalaria* spp., *Dysophila cruciata, Centranthera nepalensis, Utricularia* spp. etc.

Aquatic Vegetation: Aquatic flora is poor in the area, and is found only in ditches or where the flow of stream is very slow, *i.e.* on abrupt curves of streams and rivers. Notable species are: *Vallisneria spiralis, Potamogeton javanicus, Myriophyllum intermedium, Ammania rotundifolia, Eriocaulon ritcheanum, Limnophila indica, Nymphoides cristatum,* etc.

Flora: The flora of the area is interesting as it presents few types that are characteristic to the North-West and Central Himalaya, *e.g. Thalictrum foliolosum, Geranium ocellatum, Androsace umbellata, Mazus delavayi, Lindernia hookeri* var. *kumaunensis* etc.

The percentage of species of dicotyledons and

monocotyledons in the flora of Amarkantak is 68.3 and 26.5 respectively while in the flora of the World 81.30 and 18.70. Thus the percentage of monocotyledons in the flora of Amarkantak is very high as compared to the percentage of monocotyledons in the flora of the World. It is due to the large number of grasses in the area. Except Cyperaceae and Gramineae monocots are poorly represented. The Gymnosperms are altogether absent (except the few planted). Pteridophytes are also not rich in the area.

It is interesting to note the proportion of genera to species. It is approximately 1:13 for the World, 1:7 for India, 1:1.5 for Amarkantak. This shows the small proportion of species to the number of genera in the flora of Amarkantak. This is in accordance with general rule that floras of smaller areas and remote islands are relatively richer in orders and genera than in species.

Gramineae is the largest family with regard to the number of species, so much so that its ratio with rest of the monocotyledons comes to approximately 1:3. The second largest family in the flora of the area is Compositae and third Papilionaceae.

REVIEW OF PREVIOUS WORK

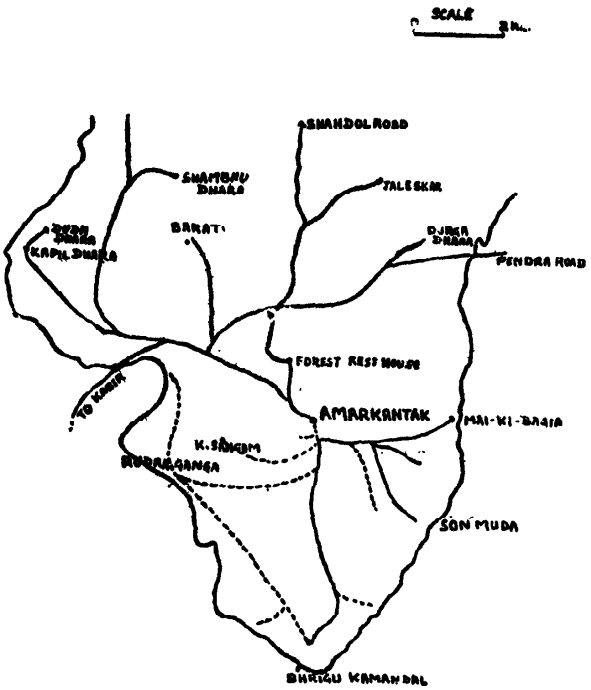
There is no published account of the flora of Amarkantak. Only a brief account of the vegetation has been described by *R. Misra* (1956).

PRESENT STUDY

The present paper is the result of 6 years intensive studies on the flora. Total area covered is approximately 100 sq. km, ranging from 800-1100 metres of altitude. The highest point is Damgarh which rises to the height of 1102.27 m. The approximate limits of the area covered are, Jaleshwar to the north, Bhrigukamandal to the south, Amadob to the east and Panchdhara to the west, as shown in the map.

For collections of plants regular touring in different seasons were undertaken for four years. The specimens are preserved at the Herbarium, State Forest Research Institute, Jabalpur, M.P.

In all 614 species of Phanerogams and 21 of Pteridophytes have been enumerated in the following pages. Seven species are new for Central India (marked by double asterisk) and fourteen for Madhya Pradesh (marked by single asterisk). Nomenclature of species has been brought up-to-date in conformity with the latest International Code of Botanical Nomenclatures. Local names given are those gathered by personal contact with the inhabitants. A short note on the occurrence of species and time of flowering and fruiting has been given under each species.



Map of Amarkantak.

ENUMERATION

PTERIDOPHYTA

OPHIOGLOSSACEAE

Ophioglossum reticulatum Linn.

Rare in sal forest, Shambhudhara. Fertile, Oct., *Saxena* 10415.

SCHIZAEACEAE

Lygodium flexuosum (Linn.) Sw.

Occasional in forest, Amadob. Fertile, Oct.-Nov., *Indorkar* 11101.

PTERIDACEAE

Adiantum philippense Linn.

A. lunulatum Burm.

Common in valleys along stream and river banks, often among rocks. Fertile, Aug.-Nov., *Saxena* 2958, 3554; *Shukla* 2632.

Aleuritopteris farinosa (Forsk.) Fée

Cheilanthes farinosa (Forsk.) Kaulf.

Common on moist shady slopes. Fertile, Aug.-Nov., *Saxena* 3561, 3872, 10463; *Indorkar* 10763.

Pteris quadri-aurita Retz.

Common in shady forests, Kabir. Fertile, Jan.-Feb., *Saxena* 4699.

PARKERIACEAE

Ceratopteris thalictrioides (Linn.) Brogn.

Occasional in wet places along water courses. Fertile, Sept.-Nov., *Indorkar* 111152.

ASPIDIACEAE

Abacopteris multilineatum (Wall. ex Hk.) Ching.

Nephrodium moulmiense FBI (pp.).

Common in valleys, Dudhdhara, Kabir. Fertile, Feb., *Saxena* 4661; *Khotele* 5150.

Athyrium falcatum Bedd.

Occasional along river banks. Fertile, Aug.-Oct., *Shukla* 2609, 2629.

Cyclosorus parasiticus (Linn.) Tardien ex Tardien & C. Chr.

Dryopteris parasiticum (Linn.) O. Ktze.

Nephrodium molle FBI. (pp.).

Gregarious in shady valleys. Fertile, April, *Khotele* 5151, 5192.

Dryopteris cochleata (D. Don) C. Chr.

Local name: Hattha jodi.

Common in shady valleys, Panchdhara, Amadob, Dudhdhara. Fertile, Sept.-Jan., *Saxena* 2963, 3860, 4647, 4717, 4748; *Indorkar* 1115; *Khotele* 5140.

Polystichum auriculatum Linn.

Occasional in forests. Fertile, Sept.-Oct., *Saxena* 3521.

Tectaria macrodonta (Fée) C. Chr.

Aspidium cicutarium Seem

Occasional in shady valleys, Kapildhara. Fertile, Sept., *Saxena* 3846, 4606.

BLECHNACEAE

Blechnum orientale Linn.

Common in shady valleys, along streams, Shambhudhara. Fertile, Sept.-Nov., *Saxena* 7764.

ASPLENIACEAE

Asplenium cheilosorum Kuntze ex Mett.

In shady places. Fertile, Oct., *Saxena* & *Khotele* 7929.

POLYPODIACEAE

Marginaria macrocarpa (Bory ex Willd.) Nayar & Kaur

Pleopeltis lanceolata Linn.

Occasionally found as on tree trunks, on way to Bhrigukamandal. Fertile, Oct., *Saxena* & *Singh* 7466.

Microsorium membranaceum (D. Don) Ching

Pleopeltis membranacea Moore

Polypodium membranaceum D. Don

Rare in shady places. *Khotele* 8062.

Paraleptochilus decurrens (Bl.) Copel.

Gymnopteris variabilis Hook.

Rare in valleys, on rocks along stream under forest cover. Fertile, April, *Saxena* 4665; *Khotele* 6830.

This differs from *Leptochilus axillare* in the lateral veins of the fronds being visible.

EQUISETACEAE

Equisetum debile Roxb. ex Vaucher

Local name: Murgisigri.

Along stream and river banks in shady places often among rocks, Dudhdhara, Durgadhara. *Saxena* 4734; *Saxena* & *Khotele* 5930.

SELAGINELLACEAE

Selaginella ciliaris (Retz.) Spring

S. proniflora Baker

Frequent on shady hillsides, Kapildhara, Mai-ki-Bagia. Fertile, Oct.-Nov., *Saxena* 6384; *Indorkar* 10737.

S. longipila Hieron.

S. rupestris Spring.

Shambhudhara, on rocks under forest cover. Fertile, Oct., *Saxena* 10190.

GYMNOSPERMS

CONIFERAE

Thuja orientalis Linn.

Planted.

Pinus roxburghii Sargent

Planted.

ANGIOSPERMS

RANUNCULACEAE

Clematis gouriana Roxb.

Occasional in forests in shady valleys, Kapildhara, Fr. Jan., *Saxena* 4724; *Saxena* & *Khotele* 5851, 6366.

C. smilacifolia Wall.

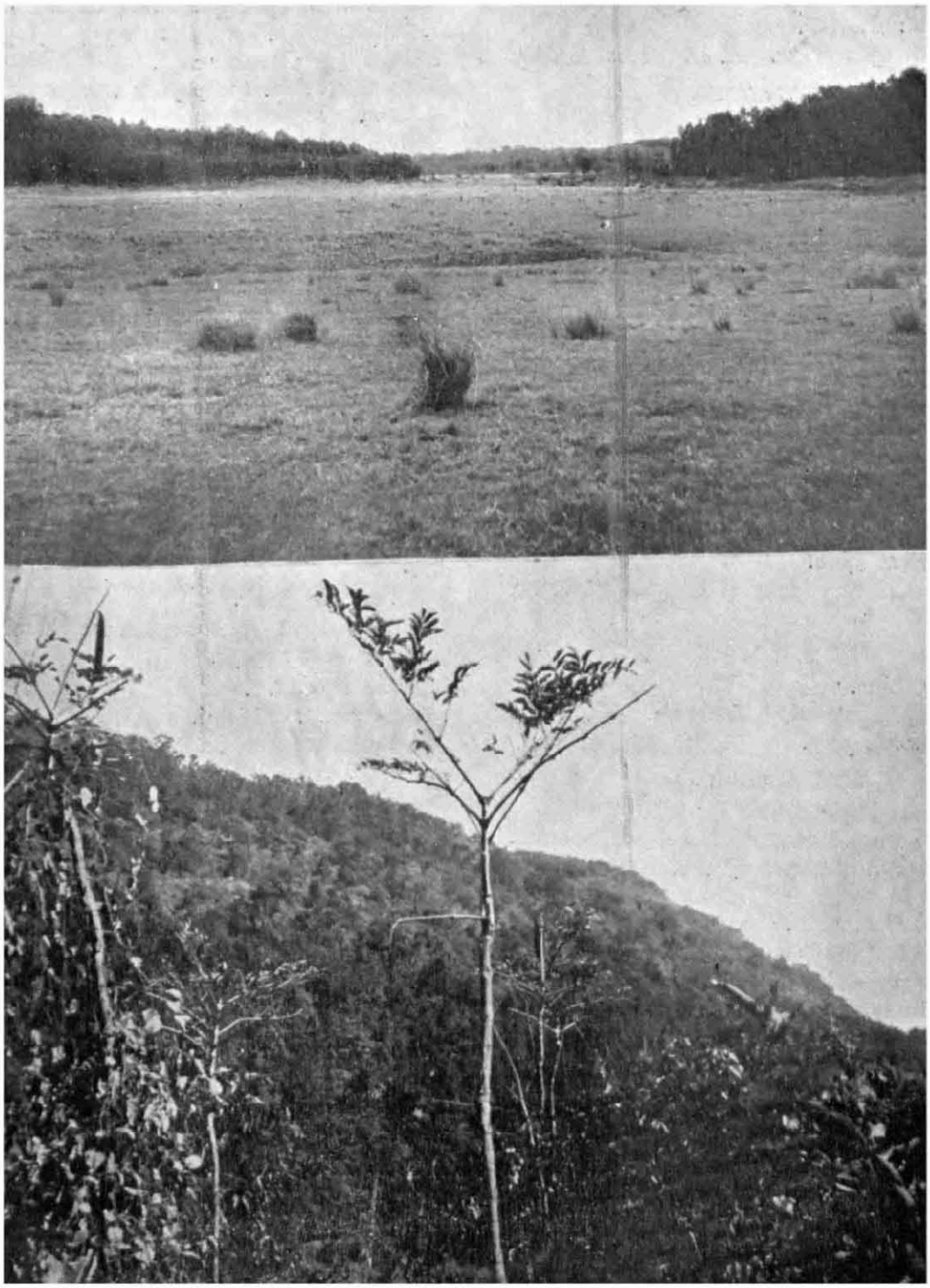
Local name: Gajapasaran.

Occasional in moist valleys in forest, Amadob, Durga nala. Fr. Jan., *Saxena* 4675, 4928, 7704.

Thalictrum foliolosum DC.

Local name: Belri.

Common in shady places and in forests, Kabir, Kapildhara. Fl. Aug.-Sept., *Saxena* 4670.



Upper : Open grassland and Sal (*Shorea robusta* Gaertn. f.) forests.
Lower : *Oroxylum indicum* (Linn.) Vent in mixed forests.

MENISPERMACEAE

Cissampelos pareira Linn.

Local name: Patthar.

Common in open places. Fl. Oct., *Khotele* 6819.

PAPAVERACEAE

Argemone mexicana Linn.

Local name: Ajan Bodshar, Sujar kanta, Kathali.

Weed in waste places, along roadsides and streams, Jaleshwar, Durgadhara. Fl. June, *Khotele* 6116.

CRUCIFERAE

Brassica campestris Linn. var. **sarson** Prain

Cultivated and often found as escape. Fl. & Fr. mainly winter.

B. juncea (Linn.) Czerrn. & Coss.

Cultivated and found as escape. Fl. & Fr. mainly winter.

B. napus Linn. (*sensu ampl.*)

Cultivated and also found as escape. Fl. & Fr. mainly winter, *Indorkar* 11176.

Raphanus sativus Linn.

Cultivated and also found as escape. Fl. & Fr. Jan.-Feb.

FLACOURTIACEAE

Bixa orellana Linn.

Occasionally planted, Amanala. Fr. May, *Saxena* & *Khotele* 5923.

POLYGALACEAE

Polygala furcata Royle

P. triphylla Buch.-Ham. ex D. Don non Burm. f.

P. triphylla var. *glaucescens* Benn.

Occasional in forest, Kapildhara, Bhrigukamandal. Fl. Sept.-Oct., *Saxena* 10152; *Saxena* & *Singh* 7455; *Saxena* & *Khotele* 10026; *Khotele* 10112.

P. persicariaefolia DC.

Frequent in forests, Sonmuda. Fl. Oct., *Saxena* 10443; *Saxena* & *Singh* 7708.

HYPERICINEAE

Hypericum japonicum Thunb.

Frequent in moist situations along river banks among grasses. Fl. & Fr. May-Sept., *Saxena* 2976, 3584; *Saxena* & *Khotele* 5829; *Khotele* 5109, 6842.

DIPTEROCARPACEAE

Shorea robusta Gaertn. f.

A dominant forest species.

MALVACEAE

Abelmoschus crinitus Wall.

Hibiscus cancellatus Roxb.

Local name: Jangli Bhindi, Banbhedi.

Common in open grasslands, Kapildhara, Kabir. Fl. Sept.-Oct., Fr. Jan., *Saxena* 3541, 4603; *Saxena* & *Singh* 6333; *Shukla* 2659.

A. manihot subsp. **tetraphyllus** var. **pungens** (Roxb.) Hochr.

Hibiscus pungens Roxb.

Rare near Shambhudhara. Fl. Sept.-Oct., *Saxena* 10195.

Abutilon polyandrum (Roxb.) W. & A.

Occasional weed along roadsides etc., Amanala. Fl. & Fr. Nov.-Feb., *Saxena* 4938.

Gossypium arboreum Linn. var. **neglecta** Wall.

G. herbaceum Fl. Brit. Ind. (in part).

Sonmuda. Fr. Nov., *Indorkar* 10729.

Hibiscus lobatus (J. A. Murray) O. Ktze.

H. solandra L' Herit

Occasional in sal forest. Fl. Sept.-Oct., *Saxena* 3504; *Khotele* 10019, 10103.

H. syriacus Linn.

Amanala, planted. Fl. rainy season. *Saxena* 4797.

Kydia calycina Roxb.

Occasional in sal forests, near Shambhudhara. Fl. Oct., *Saxena* 10155.

Sida acuta Burm. f.

Local name: Biriyari.

Common weed in waste places and along roadsides. Fl. & Fr. Aug.-Nov., *Saxena* 2945, 3501; *Khotele* 10008; *Indorkar* 11177.

S. cordifolia DC.

Frequent in waste places, along roadsides. Fl. May-Oct., *Khotele* 10003, 5838.

S. veronicaefolia Lam.

Local name: Bishkhapri.

Fairly common in waste places and along roadsides. Fl. & Fr. chiefly July-Jan., but almost all the year round. *Saxena* 4912; *Saxena* & *Singh* 7430; *Shukla* 2663.

Thespesia lampas (Cav.) Dalz.

Local name: Charmohi, China.

Common in open dry places often in grasslands. Fl. Sept.-Oct., Fr. Nov.-Jan., *Saxena* 4654; *Saxena* & *Singh* 6376, 7438.

Urena lobata Linn. subsp. **lobata** var. **lobata**; Waalkes in Blumea 14: 140, 1960.

U. lobata Linn.

Fairly common in open waste lands, along stream in forest etc. Fl. & Fr. May-Dec., *Saxena* 2936, 4688; *Saxena* & *Singh* 7796; *Saxena* &

Khotele 5927; *Khotele* 10037, 10075; *Indorkar* 11123, 10756.

Urena repanda Roxb.

Rare in waste places, Amarkantak, Shambhudhara. Fl. & Fr. Sept.-Oct., *Saxena* 10468; *Saxena & Singh* 7403.

BOMBACACEAE

Bombax ceiba Linn.

Salmalia malabarica (DC.) Schott & Endl.

Bombax malabaricum DC.

Local name: Semal. (The root of young sapling being known as 'Semal Kand').

Occasional, Kabir, Kapildhara.

STERCULIACEAE

Eriolaena hookeriana W. & A.

Rare in forest, Mai-ki-Bagia. Fr. Nov., *Indorkar* 10752.

Sterculia villosa Roxb.

Occasional in miscellaneous forests in valleys, Sambhudhara, Kapildhara. Fl. Jan.-March, Fr. May-June, *Saxena* 10423; *Saxena & Khotele* 5858.

TILIACEAE

Corchorus aestuans Linn. (non Forsk.)

C. acutangulus Lam.

Common weed along roadside and in waste places. Fl. & Fr. rainy season, *Saxena* 3824.

Grewia disperma Rottl.

Rare in forest. Fl. Oct., *Tiwari* 20331.

G. subinaequalis DC.

G. asiatica auct. non Linn.

Local name: Dhaman.

Occasional in forests, Kapildhara, Durgadhara, Kabir. Fl. April-June, Fr. Sept., *Saxena* 3822, 3832; *Saxena & Khotele* 5817, 5854; *Khotele* 5197, 6122.

Triumfetta annua Linn.

Occasional in valleys in forest, Sonmuda, Kapildhara. Fl. Sept., Fr. Oct., *Saxena* 3514, 6370; *Saxena & Singh* 6341; *Khotele* 10092.

T. pilosa Roth

Frequent in forests in shady valleys; often also found in open places, Kapildhara, Durgadhara, Kabir etc. Fl. & Fr. Sept.-March, *Saxena* 4628, 4925; *Khotele* 6822, 10088; *Indorkar* 10780.

A shrub attaining a height of 3 metres and diameter of stem 10 cm.

T. rhomboidea Jacq.

T. bartramia (*non illegit.*)

Common in waste places and in forest. Fl. & Fr. Sept.-Jan., *Saxena* 2960, 2999, 4643; *Khotele* 10009, 10045.

LINACEAE

Linum usitatissimum Linn.

Found as escape along waysides and in forests. Fl. & Fr. Sept.-Oct., *Saxena* 2938, 3528.

Reinwardtia indica Dumort.

Frequent in forests especially in valleys, Sonmuda, Kabir, Mai-ki-Bagia. Fl. & Fr. Sept.-Nov., *Khotele* 10046, 10070, 10014, 10151; *Indorkar* 10726, 10932.

GERANIACEAE

Geranium ocellatum Camb.

Rare in moist shady places, Kapildhara. Fl. March, *Saxena* 4626, 4738.

OXALIDACEAE

Biophytum reinwardtii (Zucc.) Klotz.

Local name: Lachkur.

Frequent in shady places; Shambhudhara, Jaleshwar. Fl. Sept.-Oct., *Saxena* 3858, 10410; *Saxena & Singh* 7447.

Oxalis corniculata Linn.

Local name: Tinpatiya, Amrul.

Common in open waste places, in forest, along river banks etc. Fl. & Fr. Most part of the year, *Saxena* 2917, 3843; *Shukla* 2610; *Khotele* 5842, 5172; *Indorkar* 11153.

BALSAMINACEAE

Impatiens balsamina Linn.

Common in shady places along roadsides, waste places. Fl. & Fr. Sept.-Oct., *Saxena* 3843; *Khotele* 10007; *Indorkar* 11139.

RUTACEAE

Aegle marmelos (Linn.) Corr.

Amanala, occasional; sometimes planted. Fl. June, *Khotele* 5921.

Citrus aurantium Linn.

Planted, Kapildhara, Durgadhara. Fl. Oct.-Nov., Fr. May, *Saxena & Khotele* 5868. *Khotele* 5143, 10122; *Indorkar* 10771.

Murraya koenigii (Linn.) Spreng.

Occasionally planted, Amanala, Amarkantak. *Khotele* 5922, 10131.

M. paniculata (Linn.) Jacq.

Local name: Hathil.

Occasional in forest, Amarkantak, Kabir. *Saxena* 4774; *Saxena & Khotele* 5937.

BURSERACEAE

Boswellia serrata Roxb.

Local name: Salai.

Occasional in mixed forest near Sonmuda. *Saxena* 4763.

Bursera serrata Colebr.

Occasional in miscellaneous forests in moist valleys, Mai-ki-Bagia, Kapildhara, Amanala. Fl., April, Fr. May-June, *Saxena* & *Khotele* 5810, 5853, 5874, 5909; *Khotele* 5182.

Garuga pinnata Roxb.

Local name: Kekar.

Occasional in mixed forest, Sonmuda, Jaleshwar, *Saxena* 3850.

MELIACEAE

Melia azedarach Linn.

Occasionally planted. Fl. & Fr. March-June, *Khotele* 6860.

Toona ciliata Roem.

Cedrela toona Roxb. ex Rottl.

Local name: Bara neem.

Occasional around Amarkantak, Kabir, Kapildhara, apparently planted. Fl. & Fr. March-Nov., *Saxena* & *Khotele* 6003, *Khotele* 6125, 6860; *Indorkar* 10796.

CELASTRACEAE

Celastrus paniculata Willd.

Local name: Amjun.

Common in forests, Panchdhara, Amanala, Sonmuda. Fl. March-April, Fr. Oct.-Dec., *Saxena* 4737; *Saxena* & *Singh* 7424; *Indorkar* 10701.

Elaeodendron glaucum (Vahl) Pers.

Local name: Jamrasi, Mimri.

Occasional in forest. Fl. Oct., *Saxena* 10168.

RHAMNACEAE

Helinus lanceolatus Brand.

Frequent in forests: Kapildhara, Shambhudhara. Fl. April-May, Fr. Sept.-Oct., *Saxena* 10429; *Saxena* & *Khotele* 5877; *Shukla* 2626; *Khotele* 10110.

Rhamnus wightii W. & A.

Occasional at Kapildhara. Fl. & Fr. Jan.-Oct., *Saxena* 3818, 4624; *Khotele* 5129, 5138, 10116, 10124; *Indorkar* 10782.

Ventilago denticulata Willd.

V. calyculata Tulanse

Occasional in valleys: Durgadhara. Fl. Oct.-Nov., Fr. Dec.-Feb., *Saxena* 4926.

Zizyphus mauritiana Lam. var. **fruticosa** (Haines) Seb. & Balak.

Common in dry places: Jaleshwar, Kabir, Sonmuda, etc. Fl. May-June, Fr. Nov.-Dec., *Saxena* 10460; *Saxena* & *Khotele* 5950; *Khotele* 6101; *Indorkar* 10713.

Z. rugosa Lam.

Local name: Sagda.

Frequent in forests. Fl. Feb.-April, Fr. Nov., *Saxena* 4729, 3506; *Khotele* 5133.

Z. xylopyra (Retz.) Willd.

Local name: Ghuntia.

Frequent in forests, Jaleshwar, Amadob. Fl. Feb.-April, Fr. Nov., *Saxena* & *Khotele* 5951.

VITACEAE

Ampelocissus latifolia (Roxb.) Planch.

Vitis latifolia Roxb.

Occasional in forest. Fl. July-Aug., *Shukla* 2630.

A. tomentosa Planch.

Vitis tomentosa Heyne

Occasional in forests, Kapildhara. Fl. & Fr. July-Oct., *Khotele* 10120.

Caryatia pedata (Vahl) Gagnep.

Vitis pedata Vahl ex Roxb.

Occasional in forests, Mai-ki-Bagia. Fl. June, *Khotele* 6148.

Leea crispa Linn.

Common in forest undergrowth usually along waysides. Fl. July, Fr. Oct.-Nov., *Saxena* 4771, 10173; *Khotele* 10082; *Indorkar* 10754.

L. edgeworthii Sant.

L. aspera Edgew.

Local name: Hasiadhapan.

Frequent in sal forest. Fl. July-Aug., Fr. Sept.-Oct., *Saxena* 3502.

Tetrastigma lanceolarium Planch.

Vitis lanceolaria Wall.

Durgadhara. Fr. Oct., *Singh* 7487.

SAPINDACEAE

Schleichera oleosa (Lour.) Oken

Occasional in sal forest, Kabir. Fl. Feb.-March, Fr. April-June, *Khotele* 6821.

ANACARDIACEAE

Buchanania lanzan Spreng.

B. latifolia Roxb.

Local name: Char.

Frequent in forest. Fl. Feb., *Saxena* 4931.

Lannea coromandelica (Houtt) Merr.

L. grandis (Dennst.) Engl.

Mangifera indica Linn.

Frequently planted and often found in forests. Fl. March, Fr. June-July.

PAPILIONACEAE

Abrus precatorius Linn.

Local name: Gugchi.

Occasional in forests, Amanala. Fl. & Fr. Oct., *Saxena & Khotele* 5920; *Singh* 7476, 7479.

There are two varieties occurring in the area—one with white seeds and another with red seeds.

Aeschynomene indica Linn.

Frequent in marshes along nala banks, Shambhudhara. Fl. & Fr. Sept.-Oct., *Saxena* 10196; *Saxena & Singh* 6322.

Alysicarpus bupleurifolius (Linn.) DC.

Common in moist spots, Kapildhara, Shambhudhara, Kabir, Amadob, Mai-ki-Bagia. Fl. & Fr. Sept.-Nov., *Saxena* 3511, 3575, 6359; *Saxena & Singh* 7411, 6378; *Khotele* 10034; *Indorkar* 10946, 11126.

Butea monosperma (Lam.) Taub.

Local name: Chiula.

Rare, Shambhudhara, Jaleshwar etc. Fl. Feb.-March, *Saxena & Khotele* 5995.

B. parviflora Roxb.

Spatholobus roxburghii Benth.

Local name: Bara Okhar.

Rare on way to Amanala, a gigantic climber. Fl. Sept.-Oct., *Saxena* 4790.

Cajanus cajan (Linn.) Millsp.

Cultivated. Fl. May, *Saxena & Khotele* 5956.

Clitoria ternatea Linn.

Amanala—apparently planted. Fl. Oct., *Singh* 7474.

Crotalaria alata Buch.-Ham.

Local name: Ghurghuli.

Frequent in sal forest. Fl. Aug.-Sept., Fr. Oct.-Jan., *Saxena* 2944, 4649, 10184; *Saxena & Singh* 6307; *Shukla* 2609; *Khotele* 5166; *Indorkar* 10018, 10940.

C. albida Heyne ex Roth

Fairly common along waysides in forest, Sonmuda, Mai-ki-Bagia, Amadob, Durgadhara etc. Fl. Sept.-Oct., Fr. Nov.-Dec., *Saxena* 2961, 4634, 4948, 10450; *Saxena & Singh* 6314; *Khotele* 10024; *Indorkar* 11105.

C. calycina Schrank

Amadob. Fl. Sept.-Oct., Fr. Nov.-Dec., *Saxena* 2997; *Saxena & Singh* 7749; *Indorkar* 10975, 11102.

***C. humifusa** Grah.

Rare in forest, Shambhudhara, Kapildhara. Fl. Oct., *Saxena* 10180; *Saxena & Khotele* 6348.

C. medicaginea Lam.

C. medicaginea Lam. var. *luxuriens* Baker

Occasional, Amarkantak. Fl. & Fr. April, *Khotele* 6841.

****C. nana** Burm. f.

C. umbellata Wight ex W. & A.

Occasional in open wasteland, Shambhudhara, Kapildhara. Fr. Oct., *Saxena* 10182; *Saxena & Singh* 6347.

C. prostrata Rottl. ex Willd.

Frequent in forest, Kapildhara, Sonmuda, Fl. & Fr. Sept.-Nov., *Saxena & Singh* 6340; *Khotele* 10071.

C. sericea Retz.

Occasional in shady places, Kapildhara. Fl. Jan., *Saxena* 4752, 4629.

C. sessiliflora Linn.

Frequent in grasslands along river banks, often in moist places. Fl. Sept.-Oct., Fr. Nov., *Saxena* 1016, 10465; *Saxena & Singh* 7762.

Cylista scariosa Ait.

Occasional in forest. Fl. Jan., *Saxena* 4798.

Dalbergia lanceolaria Linn.

Local name: Kirangi.

Occasional in forest, Kapildhara, Durgadhara. Fl. April, Fr. Jan., *Khotele* 6812.

D. paniculata Roxb.

Occasional in forest near Durgadhara. Fr. May & Oct.

Desmodium gangeticum (Linn.) DC.

Local name: Balraj.

Fairly common especially in sal forests. Fl. & Fr. Sept.-Nov., *Saxena* 2959, 2994, 3852, 4712; *Saxena & Singh* 7782; *Saxena & Khotele* 5847, 5939; *Khotele* 10129.

D. heterocarpon (Linn.) DC.

D. polycarpum (Poir.) DC.

Common in forests, Sonmuda, Shambhudhara, Mai-ki-Bagia, Fl. & Fr. Sept.-Dec., *Saxena* 4680, 10185, 10449; *Khotele* 10023; *Indorkar* 10728; *Saxena & Singh* 7741.

D. motorium (Houtt.) Merr.

D. gyrans (Linn. f.) DC.

Common in forests especially in sal forests. Fl. & Fr. Sept.-Nov., *Saxena* 3515, 3525, 10408; *Saxena & Singh* 6395; *Khotele* 10032, 10076.

D. triflorum (Linn.) DC.

Frequent in flat grounds, often among rocks near stream: Shambhudhara, Sonmuda. Fl. & Fr. Sept.-Oct., *Saxena* 2294; *Saxena & Singh* 7782.

Indigofera cassioides Rottl. ex DC.

I. pulchella auct. non Roxb.

Local name: Birhul.

Common in forest. Fl. May-Oct., *Saxena* 4704, 10186, 10451; *Shukla* 2657; *Saxena & Khotele* 5993.

Indigofera trifoliata Linn.

Common in forests. Fl. & Fr. Aug.-Oct., *Saxena* 10453, 10186; *Saxena* & *Singh* 7745.

Melilotus alba Desr.

Kapildhara. Fl. & Fr. Nov.-Jan., *Khotele* 6178.

M. indica (Linn.) All.

Occasional weed in forests, along roadsides and river banks, and in cultivated ground. Fl. & Fr. April-July, *Khotele* 6162, 6164.

Millettia auriculata Baker ex Brand.

Local name: Guilhar.

In mixed forest at Jabalpur. Fl. Aug.-Sept., Fr. Oct.-Dec., *Saxena* & *Singh* 7440.

Moghania bracteata (Roxb.) H. L. Li

Common in forest. Fl. Sept., Fr. Nov.-Jan., *Saxena* 4730, 10409; *Saxena* & *Singh* 7747; *Indorkar* 10714.

M. semialata (Roxb.) Mukerjee

Flemingia semialata Roxb.

Common in forests undergrowth. Fl. Sept.-Oct., Fr. Nov.-Jan., *Saxena* 4683, 2915, 10162; *Saxena* & *Singh* 6331; *Khotele* 10035; *Indorkar* 10931, 11151.

Mucuna prurita Hook. f.

Local name: Kinwach.

Occasional in forest, Duddhara, Kabir. Fl. & Fr. Sept.-Nov., *Saxena* & *Singh* 6374; *Singh* 7420.

Ougenia oojeinensis (Roxb.) Hochreut

Occasional in mixed forests and sal forests, Kabir, Sonmuda. Fr. April, *Khotele* 6834.

Phaseolus aureus Roxb.

P. radiatus auct. non Linn.

Local name: Van-urd.

Fairly common in forests along waysides and in field. Fl. & Fr. Sept.-Oct., *Saxena* 3538, 3863, 10194, 10426, 10442, 10452, 10462; *Saxena* & *Singh* 7705, 7790.

P. radiatus Linn. (auct. FBI)

P. sublobatus Roxb.

P. trinervius Heyne

Common in forests and along river banks, Kapildhara, Kabir. Fl. & Fr. Sept.-Oct., *Saxena* 3537, 3817, 10474; *Saxena* & *Singh* 6303; *Khotele* 10118.

Pueraria tuberosa (Roxb. ex Willd.) DC.

Local name: Patal Kumrha.

Abundant on way to Durgadhara; occasional at Jaleshwar. Fl. Sept.-Oct., *Shukla* 2656.

Pterocarpus marsupium Roxb.

Local name: Saharua (Gondi).

Rare, Kapildhara, Shambhudhara. *Saxena* 10164.

Sesbania aegyptiaca Pers.

Along river bank, Kapildhara. Fl. & Fr. Sept.-Oct., *Khotele* 10128.

S. bispinosa (Jacq.) Fawett & Rendle

Along roadside: Durgadhara. Fl. April, *Khotele* 5199.

Smithia conferta J. E. Smith

S. geminiflora Roth

Fairly common along river banks and waysides in moist situations: Sonmuda, Kapildhara. Fl. & Fr. Sept.-Oct., *Saxena* 3573, 6323, 7715; *Khotele* 10087.

Teramnus labialis (Linn. f.) Spreng.

Occasional in forest: Dudhdhara. Fl. & Fr. Sept.-Jan., *Saxena* 4723.

Vigna vexillata (Linn.) A. Rich.

V. capensis Walp.

Occasional in shady places and in forest. Fl. Sept.-Oct., Fr. Oct.-Nov., *Saxena* & *Singh* 7451; *Khotele* 10042, 10105.

Zornia gibbosa Spanoghe

Z. diphylla auct. non Pers.

Common along waysides. Fl. & Fr. Aug.-Oct., *Saxena* s.n.

CAESALPINACEAE

Bauhinia retusa Kuntz.

Local name: Thanwar.

Associate of mixed forest, Kapildhara, Sambhudhara. Fl. Sept.-Oct., *Saxena* 3530; *Saxena* & *Singh* 7786; *Khotele* 10104; *Indorkar* 10781.

B. vahlii W. & A.

Local name: Mahul.

Common climber in forests, Shambhudhara, Bhrigukamandal, Sonmuda, Kapildhara. Fl. April-May, *Saxena* & *Khotele* 5802; *Khotele* 5131, 5184.

B. variegata Linn.

Local name: Kachnar.

Occasional in forests, Bhrigukamandal, Dudhdhara. Fl. April.

Cassia fistula Linn.

Local name: Amaltas, Dhan bahar.

Occasional in sal forest. Fl. June, *Khotele* 6188.

C. mimosoides Linn.

Common along roadsides, in forest, along streams. Fl. & Fr. Sept.-Nov., *Saxena* 2989, 10448; *Saxena* & *Singh* 7784; *Khotele* 10016; *Indorkar* 10785, 10031, 11108.

C. occidentalis Linn.

Local name: Kasondi.

Frequent in waste places, along roadsides, borders of fields and forests. Fl. & Fr. Sept.-Nov., *Saxena* & *Singh* 7711; *Indorkar* 10768; *Khotele* 10004.

C. pumila Lam.

Common in forest, along waysides etc. Fl. & Fr. Aug.-Oct., *Saxena* & *Singh* 7707.

Cassia tora Linn.
Local name: Chakora, Charuta.
Frequent in waste places.
Tamarindus indica Linn.
Occasionally planted.

MIMOSACEAE

Acacia torta (Roxb.) Craib.
A. caesia W. & A. non Willd.
Occasional in forest. Fl. May. Fr. Oct.-Nov., *Saxena & Khotele* 5905; *Saxena & Singh* 7439.
Albizzia amara Boiv.
Occasional in forest. Fl. May, *Saxena & Khotele* 5959.
A. odoratissima (Linn. f.) Benth.
Occasional in forest, Durgadhara road. Fl. April-May, *Saxena & Khotele* 5934, 5963; *Khotele* 6809.
A. procera Benth.
Occasional on way to Amanala. Fl. & Fr. Jan., *Saxena* 4788.

ROSACEAE

Prunus persica (Linn.) Stokes.
Cultivated. Fl. Nov., *Indorkar* 10994, 11168.

CRASSULACEAE

Bryophyllum calycinum Salis.
Among rocks near Kapildhara Fall. *Saxena* 3849; *Saxena & Khotele* 5865.

DROSERACEAE

Drosera burmanii Vahl
Occasional in open moist places, often among rocks near streams, Kapildhara, Shambhudhara. *Khotele* 5158; *Indorkar* 10800.
D. indica Linn.
Occasional in moist or marshy places among grasses, Damgarh. Fl. Sept.-Oct., *Saxena* 3583, 10437.

HALORRHAGIDACEAE

***Myriophyllum intermedium** DC.
Along river banks, aquatic, Shambhudhara. Fl. Jan.-Feb., *Saxena* 4618(B).

COMBRETACEAE

Anogeissus latifolia (Roxb.) Wall. ex Bedd.
Occasional in forest, Kapildhara Road, Mai-ki-Bagia. *Saxena* 3830; *Indorkar* 10757.
Combretum nanum Buch.-Ham.
Durgadhara. Fl. April, *Khotele* 5187.
Terminalia chebula Retz.
Local name: Harra.
Common in forests. Fl. April-June, Fr. Oct., *Saxena & Singh* 7426; *Khotele* 5176; 6116, 6135.

MYRTACEAE

Eucalyptus spp.
A number of *Eucalyptus* species including *E. tercticormis* Sm. and *E. camaldulensis* Dehn. have been planted by the forest department, M.P. for trial.
Psidium guajava Linn.
Local name: Bihi.
Planted. Fl. May, Fr. Cold season, *Saxena & Khotele* 5955.
Syzygium cumini (Linn.) Skeels
Common in forests, Durgadhara; also planted. Fl. May, *Khotele* 6814.
S. jambos (Linn.) Alston
Planted: Amanala. Fr. May, *Saxena & Khotele* 5918.

LECYTHIDACEAE

Careya arborea Roxb.
Local name: Kumbhi.
Durgadhara. Fl. April, *Khotele* 5194.

MELASTOMATACEAE

Osbeckia chinensis Linn.
Frequent in moist localities among grasses: along Narvada, Shambhudhara. Fl & Fr. Sept.-Nov., *Saxena* 2992, 10473; *Saxena & Singh* 7407, 7795; *Khotele* 10056, 10093; *Indorkar* 10799, 10973.
Sonerila tenera Royle
Frequent in shady places, Shambhudhara, Kapildhara. Fl. & Fr. Sept.-Oct., *Saxena* 3520, 6360, 10166; *Khotele* 10036; *Saxena & Singh* 6373.

LYTHRACEAE

Ammannia baccifera Linn.
In moist places, Johilla. Fl. Nov., *Tiwari* 20351.
A. tenuis C. B. Cl.
Common on rocks and along river banks—sub-aquatic, Shambhudhara, Kapildhara, Dudhdhara. Fl. Nov.-April, *Saxena* 4630; *Khotele* 5124; *Indorkar* 10772.
Lagerstroemia parviflora Roxb.
Local name: Lendia, Seji.
Common in forests towards Jaleshwar. Fr. Aug.-Sept., *Khotele* 6114.
Rotala mexicana Cham. & Schecht
Ammannia pygmaea S. Kurz
In moist flat grounds or among rocks along stream banks, Shambhudhara, Damgarh. Fl. & Fr. Sept.-Oct.
R. rotundifolia (Buch.-Ham.) Koehne
Common aquatic, Kabir, Jaleshwar. Fl. April-June, *Saxena* 4618A; *Khotele* 5111; 5124; *Saxena & Khotele* 5886.

Woodfordia fruticosa Kurz
Local name: Sartili.
Common in forests, often on steep hill sides and slopes. Fl. April, *Saxena* 4713; *Khotele* 5144.

PUNICACEAE

Punica granatum Linn.
Planted: Amanala. Fl. May, *Saxena* & *Khotele* 5925.

ONAGRACEAE

Ludwigia octovalvis (Jacq.) Raven subsp. **octovalvis**
Jussiaea suffruticosa Linn.
Occasional along streams and nala banks: Amadob road, Shambhudhara, Amarkantak. Fl. & Fr. Sept.-Oct., *Saxena* 3507; *Saxena* & *Singh* 7406; *Indorkar* 11132.
L. perennis Linn. (excl. "foliis oppositis")
L. parviflora Roxb.
Common along streams and nala banks. Fl. Sept.-Oct., Fr. Nov.-Dec., *Saxena* 3507.

SAMYDACEAE

Casearia elliptica Willd.
C. tomentosa Roxb.
Occasional in sal forest. Fr. May, *Saxena* & *Khotele* 5967.
C. graveolens Dalz.
Occasional in forest on way to Mai-ki-Bagia, Kapildhara. Fl. April-May, Fr. May-July, *Saxena* & *Khotele* 5815, 5873.

CARICACEAE

Carica papaya Linn.
Occasionally cultivated.

CUCURBITACEAE

Cucumis sativus Linn.
Common in waste places, often in forests. Fl. Sept.-Oct., *Saxena* 3542, 3833, 10192, 10458; *Saxena* & *Khotele* 10015, 10136.
Diplocyclos palmatus (Linn.) Jaffery
Bryonia laciniosa auct, non Naud.
Occasional in forest, Kabir, Kapildhara. Fl. & Fr. Sept.-Nov., *Saxena* 3545, 10472; *Saxena* & *Singh* 6329; *Khotele* 10134; *Indorkar* 10923.
Melothria heterophylla (Lour.) Cogn.
Occasional in forests: Shambhudhara, Kapildhara Road. Fl. & Fr. May-Oct., *Saxena* 3854; *Saxena* & *Khotele* 5991.
M. maderaspatana (Linn.) Cogn.
Occasional in open places. Fl. & Fr. Aug.-Oct., *Saxena* 2993.
Trichosanthes bracteata (Lam.) Voigt.
Shambhudhara. *Saxena* & *Khotele* 5992; *Indorkar* 10763.
T. cordata Roxb.
Local name: Kundrukand.
Occasional in forest. Fl. & Fr. Rainy season. *Saxena* 4782.

BEGONIACEAE

Begonia picta Sm.
In shady places, often on rocks hill sides: Kapildhara. Fl. Sept.-Oct., *Saxena* 3874, 7433, 10117; *Saxena* & *Singh* 6381.

CACTACEAE

Opuntia monacantha Haw.
Amarkantak. Fl. May, *Saxena* & *Khotele* 6001.

FICOIDEAE

Mollugo pentaphylla Linn.
M. stricta Linn.
Kapildhara Road. Fl. & Fr. Sept.-Oct., *Saxena* & *Singh* 6335.

UMBELLIFERAE

Bupleurum mucronatum W. & A.
Occasional in forest often on steep slopes. Fl. & Fr. Sept.-Nov., *Saxena* 3531, 4742, 10422; *Saxena* & *Singh* 7767; *Indorkar* 10798, 11107.
Centella asiatica (Linn.) Urban
Local name: Brahma.
Common in moist places near water courses. Fl. Sept., *Khotele* 5193.
Hydrocotyle sibthorpioides Lam.
H. rotundifolia Roxb.
Local name: Brahmi.
Occasional in wet places along water courses. *Saxena* 3596.
Oenanthe stolonifera Wall.
Local name: Jalraj.
Occasional along riversides. Fl. May, *Saxena* & *Khotele* 5861; *Saxena* 4619.
***Peucedanum dhana** Buch.-Ham. var. **dalzellii** C. B. Cl
Local name: Tejraj.
Rare in forest. Fr. May, *Saxena* 4611.
P. nagpurense Prain
P. glaucum DC. var. *nagpurensis* C. B. Cl.
Local name: Bhojraj.
Rare in valleys under forest cover. Fr. Jan., *Saxena* 4740.
Pimpinella bracteata Haines
Local name: Hansraj.
Frequent in and along waysides in shady places,

Kapildhara. Fl. & Fr. Sept.-Jan., *Saxena* 3876, 4749; *Khotele* 10109; *Indorkar* 11116.

Pimpinella heyneana (DC.) Benth.

Common in forests and along waysides in moist places. Fl. & Fr. Sept.-Oct., *Saxena* 10407; *Saxena* & *Singh* 7448; *Khotele* 10011.

P. monoica Dalz.

Occasional in moist and shady places. Fl. & Fr. Sept.-Oct., *Shukla* 2628.

ARALIACEAE

Schefflera venulosa (W. & A.) Harms

Occasional in moist valleys in mixed forests, Kapildhara. Fl. & Fr. May-June, *Saxena* & *Khotele* 5870, 5965.

RUBIACEAE

Adina cordifolia (Roxb.) Hk. f. ex Brand.

Local name: Mundi.

Occasional in forests.

Anotis calycina Hk. f.

Occasional in moist and shady places, Shambhudhara. Fl. & Fr. Sept.-Oct., *Saxena* 10177.

Borreria stricta (Linn. f.) C. F. W. Mey

Common along waysides and in waste places. Fl. & Fr. Sept.-Oct., *Saxena* 3524, 3563, 10441.

Gardenia latifolia Ait.

Local name: Papra.

Occasional in forest near Kapildhara. Fl. June, *Khotele* 6187.

Hedyotis pinifolia Wall. ex G. Don

Local name: Agai ghas.

Occasional along the edges of sal forest, Shambhudhara. Fl. & Fr. Sept.-Oct., *Saxena* & *Singh* 7765.

Hymenodictyon exelsum (Roxb.) Wall. ex Roxb.

Rare, Bhrigukamandal. *Saxena* & *Khotele* 5969.

Knoxia sumattrense (Retz.) DC.

K. corymbosa Willd.

Occasional in sal forest, Sonmuda, Kabir. Fl. Sept.-Nov., *Khotele* 10084; *Indorkar* 10930.

Mitragyna parviflora Korth.

Local name: Karka.

Occasional in forest. Fl. & Fr. June, *Khotele* 6139.

Oldenlandia corymbosa Linn.

Fairly common along waysides, in waste places and in forests. Fl. & Fr. Sept.-Nov., *Saxena* 2914.

O. gracilis DC.

Along river banks among grasses. Fl. & Fr. Sept.-Nov., *Khotele* 5107; *Indorkar* 10926; *Saxena* 4700.

O. ovatifolia (Cav.) DC.

O. nudicaulis Roth

Occasional in forests usually in sheltered places. Dudhdhara, Shambhudhara. Fl. & Fr. Oct.-Nov., *Saxena* & *Singh* 6391, 7721, 7739.

Pavetta indica Linn.

Frequent in forests; Kapildhara Road, Sonmuda. Fl. & Fr. June-Dec., *Saxena* 3855, 4707; *Indorkar* 10750.

Rubia cordifolia Linn.

Local name: Manjeeth.

Common in forests, Mai-ki-Bagia, Kabir, Kapildhara, Amadob. Flowers yellowish. *Saxena* & *Singh* 7710; *Shukla* 2617, 2647; *Khotele* 10030; *Indorkar* 11103.

Spermadictyon suaveolens Roxb.

Hamiltonia suaveolens Roxb.

Occasional in forests often on steep slopes and ridges. Flowers white. Fl. May, *Saxena* & *Khotele* 5983; *Indorkar* 10949.

Xeromphis spinosa (Thunb.) Poir.

Randia dumetorum Lam.

Occasional in open forests, Kapildhara Road. Fl. May, *Saxena* & *Khotele* 5823.

Wendlandia exerta DC.

Local name: Tilwan.

Occasional in forest, Mai-ki-Bagia, Amadob. Fl. & Fr. April-Aug., *Saxena* 4761; *Saxena* & *Khotele* 5921; *Khotele* 5181.

COMPOSITAE

Acanthospermum hispidum DC.

Frequent along roadsides and waste lands. Fl. & Fr. Aug.-Nov., *Saxena* 2932; *Indorkar* 11767.

Adenostema lavenia (Linn.) O. Ktze. var. **lavenia.**

Frequent in moist shady places often along stream. Fl. Sept.-Oct., *Saxena* 3512, 4662, 6388; *Khotele* 10021, 10042, 10127.

****Ageratum houstonianum** Mill.

Local name: Kubi.

Fairly common weed along roadsides in waste places and in fields. Fl. & Fr. chiefly July-Oct., *Saxena* s.n.

Artemisia parviflora Buch.-Ham. ex Roxb.

Occasional in open places, Kapildhara, Shambhudhara, Amadob Road etc. Fl. & Fr. Sept.-Nov., *Saxena* 3835; *Saxena* & *Singh* 6349, 7793; *Indorkar* 10709, 11106.

Bidens pilosa Linn.

Common in waste places and along roadsides. Fl. & Fr. May-Jan., *Saxena* 2984, 4918, 4933; *Saxena* & *Khotele* 5929.

Blainvillea acmella (Linn.) Philipson

Common usually in shady places, occasionally in forests. Fl. Sept.-Oct., Fr. Oct.-Nov., *Saxena* 3802; *Saxena* & *Singh* 7712.

Blumea bifoliata DC.

Frequent in waste places in moist situations. Fl. May-June, *Saxena* & *Khotele* 5972; *Khotele* 5942.

B. lacera DC.

Occasional in sheltered waste places, Kapildhara. Fl. Jan., *Saxena* 4620, 4622.

B. laciniata DC.

Occasional in waste places, Mai-ki-Bagia. Fl. & Fr. April-May, *Saxena* & *Khotele* 5816.

B. oxyodonta DC.

Occasional along waysides, Kapildhara. Fl. Jan., *Saxena* 4639.

B. virens DC.

On steep hill slopes in shade, Kapildhara. Fl. Jan., *Saxena* 4779.

Blumeopsis flava (DC.) Gagnep.

Erigeron falcatum auct. pl. non D. Don.

Laggera flava (DC.) Benth.

Common on hill sides, usually under forest cover, Kabir, Sonmuda. Fl. & Fr. Sept.-Nov., *Khotele* 10064; *Indorkar* 10936.

Centipida minima (Linn.) A. Br. & Aschers.

In open places. Fl. & Fr. April-May, *Khotele* 6889.

Centrantherum anthelminticum (Willd.) O. Ktze.

Local name: Banjeeth.

Common in forests, Kapildhara, Shambhudhara, Jaleshwar. Fl. Sept.-Oct., *Saxena* 3565; *Saxena* & *Singh* 6328, 7414, 7444.

Chrysanthemum indicum DC.

In open places among grasses, Shambhudhara. Fl. Sept.-Oct., *Saxena* 3527, 6355, 10428.

Conyza bonariensis (Linn.) Cronquist; Cuatr. in Webbia 24: 222, 1969.

Erigeron linifolius Willd.

Occasional in waste places. Fl. April-May, *Khotele* 6839.

C. canadensis (Linn.) Cronquist; Cuatr., l.c.

Erigeron canadensis Linn.

Jaleshwar, in waste land. Fl. May, *Saxena* & *Khotele* 5901.

C. japonica Less.

Found in waste places in moist situations. Fl. May-June, *Saxena* & *Khotele* 5888.

C. stricta Willd.

Common in open moist places. Fl. Aug.-Sept., *Saxena* 2990, 6351; *Shukla* 2623.

C. viscidula Wall.

Rare: Mai-ki-Bagia. Fl. Nov.-Dec., *Indorkar* 10742.

Cosmos bipinnatus Cav.

Commonly cultivated, sometimes spreading as an escape along roadsides in waste places. Fl. April, *Khotele* 6875.

C. sulphureus Cav.

Commonly cultivated and often spreading as an escape in waste places and roadsides, Amanalla, Amadob, Kapildhara. Fl. Sept.-Nov., *Saxena* 3535, 3829, 4934; *Indorkar* 1145.

Crepis acaulis Hook. f.

In moist places, Kabir, Narvada banks. Fl. Nov.-Dec. *Indorkar* 10922, 10966.

Cyathochine purpurea (Buch.-Ham. ex D. Don) O. Ktze.

C. lyrata Cass.

Common in moist places, usually along stream and river banks, Mai-ki-Bagia, Kapildhara Road, Dudhdhara, Shambhudhara. Fl. April-May, *Saxena* 4601; *Saxena* & *Khotele* 5989; *Khotele* 5146; *Saxena* 4601.

Dichrocephela integrifolia (Linn. f.) O. Ktze.

D. latifolia DC.

Common in shady places, in forest, in waste places. Fl. May, Fr. Sept.-Jan., *Saxena* 3836, 3864, 4607; *Saxena* & *Khotele* 5916, 5941, 5830, 5866; *Shukla* 2624.

Eclipta prostrata (Linn.) Linn.

Fairly common in waste places, as weed of cultivated lands, along water courses etc. Fl. & Fr. most part of the year, *Saxena* 1550; *Khotele* 6124.

Elephantopus scaber Linn.

Common in sal forest. Fl. Aug.-Oct., *Saxena* 2916; *Khotele* 10029.

Emilia sonchifolia (Linn.) DC.

Fairly common in waste places, along stream and river banks. Fl. Aug.-Nov., *Saxena* 2979; *Shukla* 2614; *Indorkar* 11000.

Galinsoga parviflora Cav.

Occasional in waste places and as weed in gardens. Fl. April, *Khotele* 6859.

Gnaphalium indicum Linn.

Occasional in waste places, Kapildhara. Fl. March-April, *Saxena* 4616.

G. affine D. Don

G. luteo-album sensu Hk. f. Fl. Brit. Ind. (auct. non Linn.)

Common in moist places along water courses.

Fl. April-June, *Saxena* & *Khotele* 5867; *Khotele* 5117; *Indorkar* 10997.

G. purpureum Linn.

Occasional along roadsides and in waste places, Fl. April, *Khotele* 6811.

Guizotia abyssinica Cass.

Local name: Ramtilla.

Cultivated and occasionally spreading as weed in cultivated land, roadsides etc. Fl. May-Sept., *Saxena* 3803; *Saxena* & *Khotele* 5805, 5893, 5954; *Khotele* 6105; *Indorkar* 11148.

Lagascea mollis Cav.

Common weed of waste places and cultivated lands. Durgadhara. Fl. Oct.-Jan., *Saxena* 4799, 7493; *Indorkar* 11181.

Laggera pterodonta Benth.

Along waysides and in waste places, Durgadhara, Amanala. Fl. April, *Khotele* 6811.

Plants of an unusual height of 2 meters were found in open places.

Launaea nudicaulis Less.

Occasional in open grasslands and along roadsides. Fl. April-Jan., *Saxena* 4652; *Khotele* 5104.

Pulicaria foliosa DC.

Kapildhara, Fl. June, *Khotele* 5170.

P. crispa Benth.

Along river bank. *Indorkar* 10999.

Senecio nudicaulis Buch.-Ham.

Common in open wastelands, waysides. Fl. April-May, *Saxena* & *Khotele* 5813; *Khotele* 5106.

Siegesbeckia orientalis Linn.

Common in waste places, along roadsides. Fl. & Fr. Aug.-Dec., *Saxena* 2919; *Khotele* 10001; *Indorkar* 11147.

Sonchus brachyotes DC.

S. arvensis auct. non Linn.

Common in waste places and along roadsides: Kapildhara, Amadob Road, Shambhudhara. Fl. Oct.-Nov., *Saxena* 10434; *Saxena* & *Singh* 6385; *Indorkar* 11143.

S. asper Vill.

Common in waste places and on roadsides: Kapildhara, Dudhdhara. Fl. April-May, *Saxena* 4656; *Saxena* & *Khotele* 5843, 5859, 5863; *Khotele* 6884.

S. oleraceus Linn.

Occasional in wastelands. Fl. Sept.-Nov., *Saxena* 3827; *Indorkar* 11192.

Spilanthes paniculata Wall. ex DC.

S. acmella auct. plur. non Murr. 1774.

Occasional among grasses along the banks of Narvada. Fl. Sept.-Nov., *Saxena* 3579, 3969, 10463; *Indorkar* 10795, 11175, 11195.

Tridax procumbens Linn.

Local name: Barmasiya.

Fairly common in waste places, on roadsides, in cultivated ground. Fl. & Fr. All the year round. *Saxena* 3564; *Khotele* 6121.

Vernonia cinerea (Linn.) Less.

Fairly common in waste places and in forest undergrowth. Fl. mainly Aug.-Oct., *Saxena* 3862, 4655; *Saxena* & *Singh* 6365, 7706, 7799; *Khotele* 6103, 6864, 10057; *Shukla* 2608.

V. divergens (Roxb.) Edgew.

Local name: Burbunda.

Common in forests: Sonmuda, Shambhudhara, Kabir, Durgadhara, Kapildhara. Fl. & Fr. May-Nov., *Saxena* 10163; *Saxena* & *Khotele* 5856; *Singh* 7498; *Khotele* 6827; *Indorkar* 10727.

V. roxburghii Less.

Occasional in forest: Durgadhara, Sonmuda. Fl. Nov.-Jan., *Saxena* 4722; *Indorkar* 10719.

V. teres Wall.

Occasional in forest, Shambhudhara. Fl. Oct., *Saxena* 10425; *Saxena* & *Singh* 7401, 7152.

Vicoa indica (Linn.) DC.

Local name: Onharli.

Fairly common in forests and also in open places along waysides, Durgadhara. Fl. Jan. *Saxena* 4733.

Wedelia urticaefolia DC.

Occasional in forest: Sonmuda, Mai-ki-Bagia, Kapildhara. Fl. Sept.-Oct., *Saxena* & *Singh* 6371, 7432; *Khotele* 10044, 10054.

Xanthium strumarium Linn.

Common in waste places, along waysides, and in cultivated lands. Fl. & Fr. Nov., *Indorkar* 11171.

Youngia japonica (Linn.) DC.

Common in sheltered places: Shambhudhara, Kapildhara. Fl. May-June, *Saxena* s.n.

STYLIDIACEAE

***Stylidium tenellum** Sw.

In moist grassy places: Damgarh. Fl. Oct., *Saxena* 10176, 10438.

CAMPANULACEAE

Campanula wallichii Babu in J. Bombay nat. Hist. Soc. 65: 808, 1968.

C. canescens Wall. ex DC. (non Roth)

In shady places on way to Kabir. Fl. & Fr. Jan., *Saxena* 4689.

Cephalostigma erectum (Roth) Vatke
C. schimperi Hochst.
Occasional in shady places along the edges of forests. Fl. Oct., *Saxena* & *Singh* 7763; *Saxena* 10160.

C. hookeri C. B. Cl.
Rare: Shambhudhara. Fl. Oct., *Saxena* 10160.

Lobelia heyneana R. & S.
L. trialata Buch.-Ham.
Occasional in moist places among grasses, Kapildhara, Panchdhara. Fl. Oct., *Saxena* 4703, 10413; *Saxena* & *Singh* 6382.

Wahlenbergia marginata (Thunb.) DC.
Occasional along water courses. Fl. & Fr. May, *Saxena* & *Khotele* 5881.

PLUMBAGINACEAE

Plumbago zeylanica Linn.
Local name: Chitawar.
Occasional in open or shady places. Dudhdhara. Fl. & Fr. Sept.-Oct., *Saxena* 10133; *Saxena* & *Singh* 6394.

PRIMULACEAE

Androsace umbellata (Lour.) Merr.
A. saxifragifolia Bunge
Found on damp hill sides, Dudhdhara. Fl. Jan., *Saxena* 4725.

Lysimachia obovata Hk. f.
Common in moist places, often along river banks. Fl. & Fr. April-Aug., *Saxena* & *Khotele* 5118, 5826; *Khotele* 5113, 5971; *Shukla* 2660; *Saxena* 256.

MYRSINACEAE

Ardisia solanacea (Poir.) Roxb.
Occasional in valleys along stream banks. Fl. Oct., Fr. Jan., *Saxena* 4610; *Khotele* 10125.

Embelia tsjeriam-cottam (R. & S.) A. DC.
Rare in forests. *Saxena* s.n.

EBENACEAE

Diospyros melanoxylon Roxb.
Local name: Tendu.
Rare. Fr. Jan., *Saxena* 4783.

OLEACEAE

Jasminum arborescens Roxb.
Occasional in valleys, Kapildhara, Shambhudhara. Fl. April-May, *Saxena* & *Khotele* 5870, 5996; *Khotele* 5127, 10052.

***J. brevipetiolatum** Duthie
Rare along stream banks. Fl. April, *Khotele* 5163.

J. grandiflorum Linn.
Planted. Fl. Oct., *Saxena* 10140.

J. officinale Linn.
Planted. Fl. Oct.-Nov., *Singh* 7471; *Indorkar* 11164.

J. sambac Ait.
Planted. Fl. April-May, *Saxena* & *Khotele* 5914: *Khotele* 6886.

Nyctanthes arbor-tristis Linn.
Local name: Khirsali.
Common in forests, Mai-ki-Bagia, Sonmuda. Fl. Sept., Fr. Nov., *Khotele* 10052, 10130; *Indorkar* 10748.

APOCYNACEAE

Carthamus roseus (Linn.) Don
Vinca rosea Linn.
Planted. Fl. All the year round.

Carissa opaca Stapf ex Haines
Local name: Karonda.
Common in forests, on hill slopes along river and stream banks and also in open ground, Panchdhara, Kapildhara. Fl. & Fr. April-Oct., *Saxena* 3821, 4718; *Khotele* 5135, 10108; *Indorkar* 10797.

Holarrhena antidysenterica Wall.
Occasional in forests. Fl. May, *Saxena* & *Khotele* 5961.

Nerium indicum Mill.
Planted. Fl. April, *Khotele* 6857.

Tabernaemontana divaricata (Linn.) R. Br.
Planted. Fl. May, *Saxena* & *Khotele* 5810.

Thevetia peruviana (Pers.) K. Schum.
T. nereifolia Juss. ex Steud.
Planted.

ASCLEPIADACEAE

Calotropis procera R. Br.
Rare: Amanala. Fl. Oct., *Singh* 7890.

Ceropegia hirsuta Roxb.
C. vincaefolia Hk. f.
Rare in forest, Kapildhara. Fl. Oct., *Khotele* 10121.

Cryptolepis buchananii R. & S.
Local name: Andni.
Occasional in forest, Kapildhara. *Saxena* 4731, 5871.

Hemidesmus indicus (Linn.) Schult.
Local name: Mandarlot.
Common in forest. Fl. Jan., *Saxena* 4732.

LOGANIACEAE

Buddleia asiatica Lour.
Occasional, Kapildhara, Durgadhara. Fl. Sept.-Oct., *Saxena* 3534, 3848, 4621; *Khotele* 5137; *Singh* 7495.

GENTIANACEAE

Canscora decurrens Dalz.

Common in moist places often along river banks among rocks. Fl. March-May, *Saxena* 4645, 4657; *Saxena* & *Khotele* 5835.

C. decussata (Roxb.) J. A. & J. H. Schult.

Rare along the borders of sal forest. Fl. Oct., *Saxena* & *Singh* 7751.

C. diffusa (Vahl) R. Br.

Common in moist shady places: Mai-ki-Bagia, Shambhudhara. Fl. Oct.-Nov., *Saxena* 10411; *Indorkar* 10751.

Exacum pedunculatum Linn.

Occasional in moist shady places: Shambhudhara, Sonmuda. Fl. Oct., *Saxena* 10420; *Saxena* & *Singh* 7722.

***E. petiolare** Griseb.

Rare, on moist walls of a water tank: Kabir. Fl. Oct., *Saxena* & *Singh* 7722.

E. tetragonum Roxb.

Common in open pastures among grasses. Fl. Sept.-Oct., *Saxena* 2991, 10432, 10470; *Khotele* 10066; *Indorkar* 16708; *Singh* 7461.

Hoppea dichotoma Willd.

Occasional but locally gregarious among grasses on the edges of forests and in forest clearings; also along stream banks among rocks: Shambhudhara, Damgarh. Fl. Oct., *Saxena* 10435; *Singh* 7780; *Khotele* 5157.

Nymphoides cristatum (Roxb.) O. Ktze.

Aquatic. Fl. April, *Khotele* 5121.

Swertia angustifolia Buch.-Ham.

Occasional in forests and also in open places, Kabir, Amadob. Fl. Nov., *Saxena* 2987; *Indorkar* 10945, 11104.

BORAGINACEAE

Cordia dichotoma Forst. f.

Rare. Fl. Aug., *Shukla* 2621.

Cynoglossum lanceolatum Forsk.

Local name: Kamraj, Bhavarband.

Fairly common in wastelands, along waysides, in forest. Fl. Sept.-Oct., *Saxena* 2932, 4633, 5857, 10161; *Saxena* & *Singh* 6306; *Saxena* & *Khotele* 5857; *Khotele* 5101, 10048, 10090; *Shukla* 2603.

Trichodesma indicum R. Br.

Local name: Aundhi.

Common in wastelands, along waysides etc. Fl. Aug.-Oct., *Saxena* 3539; *Saxena* & *Khotele* 5981; *Saxena* & *Singh* 7750; *Shukla* 2636.

CONVOLVULACEAE

Argyreia strigosa (Roth) Sant. & Patel

A. setosa (Roxb.) Choisy

Rare in forest. Fl. Sept., Fr. Dec.-Jan., *Saxena* 4690.

Cuscuta reflexa Roxb.

Occasional in forest, Jaleshwar, Kapildhara. Fl. Oct.-Nov., *Saxena* & *Singh* 7452; *Indorkar* 10767.

Evolvulus alsinoides (Linn.) Linn.

Common in open waste places. Fl. Most part of the year. *Saxena* 2986; *Khotele* 6168.

Ipomoea aquatica Forsk.

Kapildhara, along stream bank, aquatic. Fl. June, *Khotele* 6167.

I. cairica (Linn.) Sweet

I. palmata Forsk.

Planted in bunglows and gardens; often spreading as an escape. Fl. All the year round. *Saxena* 7178; *Saxena* & *Khotele* 5913; *Khotele* 6840, 10141; *Indorkar* 10993.

I. eriocarpa R. Br.

I. hispida (Vahl) R. Br.

Occasional in forest and open pastures. Fl. Sept.-Oct., *Saxena* 2995: *Saxena* & *Singh* 6356.

I. hederifolia Linn.

I. coccinea C. B. Cl. non Linn.

Local name: Khutlaiya.

Occasional in forest. Fl. Oct.-Nov., *Saxena* 4791; *Saxena* & *Singh* 7731.

I. nil (Linn.) Roth

Common in thickets, waste places. Fl. Sept.-Oct., *Saxena* 2996, 10439; *Saxena* & *Singh* 7717.

I. quamoclit Linn.

Quamoclit pinnata (Desr.) Boj.

Planted and often spreading as an escape. Flowers scarlet. Fl. Sept.-Oct., *Khotele* 10047.

***Porana paniculata** Roxb.

Planted in gardens. Fl. Jan., *Saxena* 4796.

P. racemosa Roxb.

Rare in forests, Kabir, Durgadhara. Fl. Oct., *Saxena* & *Singh* 7419; *Singh* 7489.

SOLANACEAE

Cestrum nocturnum Murray

Planted for ornamental purpose, Sonmuda, Amanala. Fl. May, *Saxena* & *Khotele* 5807; *Khotele* 10033; *Singh* 7477.

Datura tatula Willd.

Occasional in waste places, Sonmuda; Amarkantak. Fl. Sept.-Oct., *Khotele* 10085.

Lycopersicon lycopersicum (Linn.) Karsten

Cultivated and often found as an escape. Fl. Most part of the year. *Indorkar* 11166.

Nicandra physaloides Gaertn.

Occasional in shady places: Mai-ki-Bagia, Amadob Road, Sonmuda. Fl. Sept., Fr. Nov., *Saxena* 3838; *Khotele* 10062; *Indorkar* 10762, 11144.

Physalis minima Linn.

Occasional in waste places. Fl. April, *Khotele* 6881.

Solanum incanum Linn.

Local name: Vanbhata.

Occasional in waste places and also in forests: Amarkantak, Kapildhara Road. Fl. & Fr. Oct., *Saxena* & *Singh* 7716; *Shukla* 2662.

S. indicum Linn.

Occasional along waysides and in waste lands: Durgadhara, Kabir. Fl. & Fr. April-Sept., *Saxena* 2934; *Saxena* & *Khotele* 5945; *Khotele* 5190.

S. nigrum Linn.

Common along waysides in waste places and in cultivated lands. Fl. & Fr. All the year round. *Indorkar* 11163.

S. surattense Burm. f.

S. xanthocarpum Schrad.

Common in waste places, along roadsides and in cultivated lands. Fl. June, *Khotele* 6155.

S. tuberosum Linn.

Local name: Alu.

Cultivated. Fl. April, *Khotele* 6878.

SCROPHULARIACEAE

Centranthera nepalensis D. Don

C. hispidum Hk. f. non R. Br.

Occasional among grasses along the river Narvada. Fl. Oct., *Saxena* 10466.

Limnophila aromatica (Lamk.) Merrill

Occasional in marshy places among grasses, Shambhudhara, Sonmuda, Amarkantak—along Narvada. Fl. Oct.-Nov., *Saxena* 2968, 10197, 10469; *Khotele* 10077.

L. connata (Buch.-Ham.) Handel.-Mazzet.

L. hypercifolia (Benth.) Benth.

In moist places. Fl. Sept., *Saxena* 2951.

L. indica (Linn.) Druce

Common in stagnant water along streams, Shambhudhara, Amadob, Jaleshwar. Fl. Oct.-Nov., *Saxena* 10179; *Saxena* & *Singh* 7781; *Indorkar* 11138; *Khotele* 6109.

***Lindenbergia muraria** (Roxb.) Bruhl in Reinwardtia 7: 548, 1969.

L. indica (Linn.) O. Ktze.

L. urticifolia Lehm. (*urticaefolia nomen*)

Occasional on old walls, hillsides etc. Fl. Sept.-Nov., *Indorkar* 11160.

Lindernia anagallis (Burm. f.) Pennell

Common along stream banks etc. in marshy places or subaquatic. Fl. Aug.-Oct., *Saxena* & *Singh* 7436; *Khotele* 6110; *Shukla* 2605.

L. ciliata (Colsm.) Pennell

Fairly common in moist places. Fl. Sept.-Oct., *Saxena* 2909, 2974; *Khotele* 10058.

L. cordifolia (Colsm.) Merr.

Common in marshy places or subaquatic along stream banks. Fl. Sept.-Oct., *Saxena* 3559, 10159; *Saxena* & *Khotele* 5824, 5889; *Khotele* 5153, 6119.

L. crustacea (Linn.) F. V. Mueller

Common in moist shady places sometimes on moist rocks. Fl. Sept.-Oct., *Saxena* 2908; *Saxena* & *Singh* 6336.

****L. hookeri** C. B. Cl. ex Hk. f. var. **kumaunensis** Pennell

Amarkantak, in shady places. Fl. Sept., *Saxena* 3877.

L. nummularifolia (D. Don) Wettst.

Common in moist shady places, often on moist rocks. Fl. Sept.-Oct., *Saxena* 6372; *Khotele* 10107.

L. oppositifolia (Linn.) Mukerjee

Occasional, often gregarious in moist spots. Fl. Sept., *Saxena* 3579.

L. procumbens (Kroch.) Philcox in Taxon 14: 30, 1965.

L. pyxidaria Linn.

Occasional in shady places or under forest cover, Jaleshwar. Fl. Oct., *Saxena* & *Singh* 7451, 7736.

L. sessiliflora (Benth.) Wettst.

Mai-ki-Bagia. *Tiwari* 20356.

****Mazus delavayi** Bonati

Occasional along stream sides; sometimes in forest: Dudhdhara, Jaleshwar. Fl. Sept.-Nov., *Saxena* 2910, 4631; *Saxena* & *Singh* 7450; *Indorkar* 11157.

M. pumilus (Burm. f.) Steenis

M. japonicus (Thunb.) O. Ktze.

M. rugosus Lour.

Amarkantak. Fl. Sept., *Saxena* 2910.

Melasma arvense (Benth.) Pennell

Alectra indica Benth.

Rare on way to Shambhudhara, Amadob. Fl. Oct., Fr. Nov., *Saxena* & *Singh* 7797; *Indorkar* 11110.

Mimulus strictus Benth.

M. gracilis auct. plur. non R. Br.

In moist places. Fl. May, *Saxena* & *Khotele* 5887, 5894.

Mecardonia dianthera (Swartz.) Pennell

Fairly common along river banks, often among rocks along stream banks. Fl. April-Nov., *Saxena* 2907, 3509, 4615, 4641; *Saxena* & *Khotele* 5895, 5932; *Saxena* & *Singh* 7449; *Khotele* 5145, 6110.

Scoparia dulcis Linn.

Fairly common in waste places, in cultivated lands, along streamsides. Fl. April-May, *Saxena* 5938; *Khotele* 5125.

Sopubia delphinifolia (Roxb.) G. Don

Common in open pastures among grasses. Fl. Sept.-Oct., Fr. Nov., *Saxena* 2985; *Indorkar* 10704; *Khotele* 10061.

OROBANCHACEAE

Aeginetia indica Roxb.

Mai-ki-Bagia, scarce in forest. Fl. Sept., *Khotele* 10017.

LENTIBULARIACEAE

Utricularia bifida Linn.

Common in open marshy places among grasses and sedges along the borders of sal forest and along the river Narvada. Fl. Sept.-Oct., *Saxena* 2970, 10418; *Saxena* & *Singh* 6325.

U. caerulea Linn. (non C. B. Cl. in Fl. Brit. Ind. nec Cooke, Fl. Bombay).

U. racemosa Wall. ex A. DC.

Occasional in open marshy places among grasses and sedges. Fl. Sept.-Oct., *Saxena* 2971.

****U. graminifolia** Vahl

Occasional along streams, subaquatic. Fl. April-Nov., *Khotele* 5156; *Indorkar* 10786.

U. striatula Sm.

On wet steep slopes or wet rocks among mosses and liverworts. Fl. Oct.-Nov., *Saxena* 6389.

GESNERACEAE

***Rhynchoglossum obliquum** Bl. var. **parviflora** C. B. Cl.

Common in damp places in valleys: Mai-ki-Bagia, Kapildhara, Kabir. Fl. Sept.-Oct., *Saxena* 3556; *Saxena* & *Singh* 6368, 7418; *Khotele* 10042, 10106.

BIGNONIACEAE

Oroxylum indicum (Linn.) Vent.

Local name: Sonpadar, Bhainspadar.

Rare in open forest, Durgadhara Road, Kabir. Fr. Jan., *Saxena* 4792, 10459.

Radermachera xylocarpa (Roxb.) K. Schum.

Stereospermum xylocarpum Wight

Scarce in forest, Sonmuda. *Saxena* 10446.

Stereospermum suaveolens DC.

Local name: Padrai.

Occasional in forests. Kabir, Sonmuda, Kapildhara. Fl. April, *Saxena* 10447; *Khotele* 6833.

PEDALIACEAE

Martynia annua Linn.

M. diandra Glox

Local name: Baghmakkha.

Durgadhara, rare in waste places.

Sesamum indicum Linn.

Local name: Til.

Occasional in cultivated ground and waste places.

ACANTHACEAE

Adhatoda vasica Nees

Occasional at Kapildhara. Fr. June, *Khotele* 6175.

Barleria cristata Linn.

Common in open or shady places, Amadob. Shambhudhara. Fl. Oct.-Nov., *Saxena* 10424; *Saxena* & *Singh* 7748; *Indorkar* 11117.

B. strigosa Willd.

Occasional in forest, Kabir, Bhrigukamandal, Dudhdhara. Fl. Oct.-Nov., *Saxena* 4924; *Saxena* & *Singh* 7459; *Saxena* & *Khotele* 5940.

Dipteracanthus beddomei C. B. Cl. & Sant.

Rare in shady places. Fl. Oct., *Saxena* 10421.

Dyschoriste erecta (Burm. f.) O. Ktze.

Calophanes nagchana Nees

Common along river and stream banks, often among rocks. Fl. May, *Saxena* & *Khotele* 5837, 5839; *Indorkar* 11173.

Eranthemum purpurascens Nees

Common in forest. Fl. Oct.-Nov., *Saxena* 4640.

Hemigraphis latebrosa (Heyne ex Roth) Nees

Occasional in shady places. Fl. Jan.-May, *Saxena* 4623; *Saxena* & *Khotele* 5821.

Hygrophila auriculata (Schum.) Heyne

Asteracantha longifolia Nees

Occasional along water courses. Fl. Mainly Oct.-Nov., *Saxena* & *Singh* 6321; *Indorkar* 11193.

H. incana Nees

Occasional in moist places among grasses along river and stream banks. Fl. Sept.-Oct., *Saxena* 2950, 3568, 10567.

H. polysperma T. And.

Kapildhara, along river banks. Fr. June, *Khotele* 6179.

Justicia betonica Linn.

Common in forest, Kapildhara, Shambhudhara. Fl. Sept.-Oct., *Saxena* 3819, 6350, 7794, 10412; *Khotele* 10101; *Saxena* & *Khotele* 5998.

J. quinqueangularis Koen. ex Roxb.

Common in open moist places in forest or along river banks. Fl. Sept.-Nov., *Khotele* 10069, 10142: *Indorkar* 10955; *Saxena* & *Singh* 7405.

J. simplex D. Don

Common in forests and in waste places: Shambhudhara, Amadob Road. Fl. Sept.-Nov., *Saxena* 2998, 10115; *Indorkar* 10175, 11147.

Lepidagathis incurva D. Don

L. hyalina Nees

Common along waysides in waste places: Kapildhara. Fl. April-May, *Saxena* 4617, 5864; *Indorkar* 11130; *Khotele* 5120, 6105.

Nelsonia canescens (Lam.) Spreng.

N. campestris R. Br.

Rare in forest, Mai-ki-Bagia. Fl. April, *Khotele* 5177.

Petalidium barlerioides Nees

Local name: Mohti.

Occasional in forest, Kapildhara. Fl. April-May, *Khotele* 5126.

Ruellia tuberosa Linn.

Occasional in forest along stream banks. Fl. May, *Saxena* 2912; *Saxena* & *Khotele* 5885.

Rungia pectinata (Linn.) Nees

Fairly common in cultivated lands, wastelands, along river and stream banks. Fl. Most part of the year. *Saxena* 4638, 10167; *Saxena* & *Singh* 7456; *Indorkar* 10717, 11170.

Strobilanthes callosus Nees

Common in forest, often locally abundant: Dudhdhara, Kapildhara. Fl. Oct.-Nov., *Indorkar* 10718, 10773; *Khotele* 10114.

S. edgeworthiana Nees

Common in forest: Sonmuda, Kapildhara. Fl. Sept.-Nov., *Saxena* 10440; *Indorkar* 10718; *Khotele* 10062, 10083, 10113.

Thunbergia fragrans Roxb.

Rare in forest: Kapildhara. Fl. Oct., *Saxena* 4677; *Khotele* 10147.

VERBENACEAE

Clerodendrum japonicum (Thunb.) Sweet

C. fragrans Vent.

Local name: Indramogra.

Planted in gardens and bungalows. Fl. Sept.-Nov., *Saxena* 2965.

C. serratum (Linn.) Moon

Common in open forests, wastelands etc. usually in clearings or at the edges of sal forest. Fl. Sept.-Nov., *Saxena* 3831; *Saxena* & *Singh* 7412; *Khotele* 10038, 10081; *Indorkar* 10734.

Gmelina arborea Roxb.

Local name: Sewan, Khamer.

Amanala in forest. Fl. May, *Saxena* & *Khotele* 5908.

Lantana camera Linn. var. **aculeata** (Linn.) Moldenke

Planted and often found as an escape.

Premna barbata Wall. ex Schauer

In forest. Fr. May, *Saxena* & *Khotele* 5964.

Pygnacopremna herbacea (Roxb.) Moldenke

P. herbacea Roxb.

Occasional in moist spots in sal forest. *Shukla* 2613, 2658.

Verbena officinalis Linn.

Rare in open places. *Indorkar* 11146.

Vitex negundo Linn.

Local name: Nigod.

Jaleshwar. Fl. May, *Saxena* & *Khotele* 5880; *Khotele* 6863.

LABIATAE

Acrocephalus indicus (Brum.) O. Ktze.

Occasional: Sonmuda. Fl. & Fr. Sept. Nov., *Saxena* 2996; *Saxena* & *Singh* 7746; *Indorkar* 2918.

Anisochilus carnosus Wall.

Occasional in shady places, Sonmuda, Shambhudhara, Dudhdhara, Kapildhara. Fl. Sept.-Oct., *Saxena* 10183; *Saxena* & *Singh* 6392; *Khotele* 10065, 10080.

Calamintha umbrosa Benth.

Rare in shady places, Kabir. Fl. March, *Saxena* 4660.

Colebrookea oppositifolia Sm. (*"Colebrookia"*)

Local name: Guner.

Kapildhara, occasional. Fl. April, *Saxena* 3543, 4637.; *Khotele* 5132.

Coleus forskohlii (Poir.) Briq.

Common in forest undergrowth, along river or stream banks, Shambhudhara, Kapildhara. Fl. Oct.-Nov., *Saxena* 10414; *Saxena* & *Singh* 6377, 7789; *Khotele* 10115; *Indorkar* 10777.

Dysophila cruciata Benth.

In moist spots among grasses along the banks of Narvada; sometimes gregarious. Fl. Oct., *Saxena* 10461.

Lavandula bipinnata (Roth) O. Ktze. var. **rothiana** O. Ktze.

L. burmanii Benth.

Common in grasslands. Fl. Sept.-Nov., *Saxena* 3549, 3871, 4755; *Saxena* & *Singh* 6317, 6398; *Khotele* 6804; *Indorkar* 10747.

Leucas mollissima Wall. var. **scaberula** Hk. f.

Fairly common in sal forest. Fl. Sept.-Nov., *Saxena* 2940, 3548, 3841, 4642, 4720, 4793; *Singh* 4245; *Saxena* & *Singh* 7730; *Khotele* 10013, 10060, 10150.

Micromeria biflora Benth.

Occasional on hillsides in shady places: Kapildhara, Kabir, Shambhudhara. Fl. Mainly Sept.-Nov., *Saxena* 3873; *Saxena* & *Khotele* 5833; *Saxena* & *Singh* 7408; *Khotele* 5174; *Shukla* 2601; *Indorkar* 10977.

Nepeta hindostana (Roth) Haines

Kapildhara, in moist places. *Saxena* & *Khotele* 5855.

Ocimum canum Sims

Common in forest: Sonmuda. Fl. Sept.-Nov.. *Saxena* 2918; *Khotele* 10063; *Indorkar* 11165.

Orthosiphon rubicundus Benth.

Kapildhara, along river and stream banks. Fl. Aug., *Saxena* & *Khotele* 5850; *Shukla* 2616, 2637.

Plectranthus mollis (Ait.) Spreng.

P. incanus Link.

Common along waysides in forest undergrowth. Fl. Sept.-Oct., *Saxena* & *Singh* 6393; *Khotele* 10002; *Saxena* 2947.

Pogostemon bengalensis (Burm. f.) O. Ktze.

Occasional in forest and in waste places. Fl. April, *Saxena* 4682; *Khotele* 6823.

NYCTAGINACEAE

Boerhavia diffusa Linn.

Local name: Patharchatta.

Common in wastelands, along waysides in rocky places; abundant on way to Amanala. Fl. All the year round, *Saxena* 1543, 4800; *Khotele* 6173.

Mirabilis jalapa Linn.

Local name: Baijanti.

Kapildhara, in shady places—apparently planted. Fl. Sept.-Oct., *Saxena* 3540.

AMARANTHACEAE

Achyranthes aspera Linn.

Local name: Sathi.

Frequent in waste places along waysides and in forest undergrowth. Fl. & Fr. May-Sept., *Saxena* 2943; *Saxena* & *Khotele* 5899.

A. bidentata Blume

Common in forest, along waysides, in wasteplaces. Fl. & Fr. Sept.-Jan., *Saxena* 3516, 4605; *Saxena* & *Singh* 6308; *Khotele* 6826, 10128.

Aerva sanguinolenta (Linn.) Blume

Common along waysides, in waste places and in forest undergrowth. Fl. & Fr. Sept.-April, *Saxena* 4679; *Saxena* & *Singh* 7446.

Alternanthera pungens H. B. K.

A. echinata Sm.

Occasional along roadsides. Fl. Sept.-Nov., *Khotele* 5974; *Singh* 7463; *Indorkar* 11174; *Saxena* 3571.

A. sessilis (Linn.) DC.

Common in waste places, along water courses etc. Fl. Mainly Sept.-Nov., *Saxena* 2913; *Indorkar* 11154.

Amaranthus caudatus Linn.

Mai-ki-Bagia. Fl. Nov., *Indorkar* 10738.

A. hybridus Linn. subsp. **cruentus** (Linn.) Thell. var. **paniculatus** (L.) Thell.

A. hybridus Linn.

A. paniculatus Linn.

Local name: Ramdana.

Cultivated and often spreading as an escape: Mai-ki-Bagia. Fl. Sept.-Nov., *Khotele* 10022; *Indorkar* 10741.

A. spinosus Linn.

Common in wastelands, along waysides and in cultivated lands. Fl. & Fr. Mainly Sept.-Dec., *Indorkar* 11180.

A. tricolor Linn.

Occasional weed. Fl. & Fr. Sept.-Nov., *Indorkar* 11178, 11194.

Celosia argentea Linn.

Common weed in cultivated ground, wastelands, along waysides and in forest. Fl. Sept.-Oct., *Saxena* 3815; *Saxena* & *Khotele* 7758; *Khotele* 10069.

Gomphrena celosioides Mart.

Occasional along waysides. Fl. Mainly Sept.-Nov., *Singh* 2300.

CHENOPODIACEAE

Chenopodium album Linn.

Common weed: Kapildhara, Sonmuda. Fl. & Fr. July-Dec., *Khotele* 6159, 6186, 6838.

POLYGONACEAE

Polygonum barbatum Linn.

Common along river and stream banks, Kapildhara, Panchdhara. Fl. Jan.-May, *Saxena* 4726; *Saxena* & *Khotele* 5828.

P. lanigerum R. Br.

Along stream banks, Sonmuda. *Saxena* 2956; *Khotele* 10068; *Indorkar* 10983, 10986, 10971, 11196.

Polygonum pedunculare Wall.

Local name: Jalsiliyari.

Along river and stream banks, Shambhudhara, Narvada. *Saxena* 3510; *Saxena* & *Singh* 7410.

P. plebeium R. Br.

Fairly common in moist places in cultivated fields, wastelands, dried ditches, along watercourses and often among rocks along streams. Fl. May-June, *Saxena* & *Khotele* 5814, 5883; *Khotele* 6166.

P. rottleri Roth

P. flaccidum Meissn.

Common along river and stream banks. Fl. Oct.-Nov., *Saxena* 4706, 10199, 10445, 2955; *Saxena* & *Singh* 7769; *Indorkar* 10970.

P. serrulatum Lagasc.

Common along river and stream banks. Fl. Aug. Sept., *Saxena* 3508, 4613, 4719; *Shukla* 2607.

P. stagninum Buch.-Ham.

Kapildhara, along stream banks. Fl. June, *Khotele* 6181.

P. strigosum R. Br.

Along stream and river banks: Shambhudhara. Fl. Sept.-Nov., *Saxena* 3825, 10198: *Indorkar* 10985.

Rumex dentatus Linn.

Occasional in waste places. Fr. June, *Khotele* 6163.

LAURACEAE

Litsea glutinosa (Lour.) C. R. Robins

L. sebifera Pers.

Local name: Mainda.

Jaleshwar in forest. Fl. May, *Khotele* 5906.

L. monopetala Roxb.

L. polyantha Juss.

Occasional in valleys, Durgadhara, Amadob. Fl. April-May, Fr. June, *Saxena* & *Khotele* 5948; *Khotele* 6808.

PROTEACEAE

Grevillea robusta A. Cunn. ex R. Br.

Planted in compounds and gardens. Fl. & Fr. April, *Khotele* 6871.

LORANTHACEAE

Dendrophthoe falcata (Linn. f.) Etting

Loranthus longiflorus Desv.

Common parasite on trees, Amarkantak, Mai-ki-Bagia, Kapildhara. Fl. Nov.-Jan., *Saxena* 4648; *Indorkar* 10753.

Scurrula cordifolia (Wall.) G. Don

Local name: Banda.

Common parasite on trees. *Saxena* 4754, 4932; *Saxena* & *Singh* 7719.

EUPHORBIACEAE

Baliospermum montanum (Willd.) Muell.-Arg.

Durgadhara in open dry waste places. Fr. April, *Khotele* 6813.

Bridelia retusa Spreng.

Local name: Kashahi.

Occasional in forest, Bhrigukamandal. Fr. Oct., *Singh* 7465.

Emblica officinalis Gaertn.

Local name: Amla.

Common in forest, Durgadhara, Barati. Fl. April, *Khotele* 6803.

Euphorbia geniculata Orteg.

Local name: Dudhi.

Common in waste places, along roadsides. Fl. & Fr. Sept-Nov., *Saxena* 2923; *Saxena* & *Khotele* 5896; *Khotele* 10105; *Indorkar* 11187.

E. hirta Linn.

Fairly common weed. Fl. & Fr. All the year round, *Khotele* 6172; *Indorkar* 11150.

E. neriifolia Linn.

Occasional in rocky places, Durgadhara, Kapildhara. *Singh* 7494.

E. prostrata Ait.

Fairly common weed. Fl. & Fr. Throughout the greater part of the year, *Indorkar* 11169.

Glochidion velutinum Wight

Common in forest, Kapildhara, Sonmuda. Fl. April, Fr. May-June, *Saxena* & *Khotele* 5852, 5980; *Khotele* 5148.

Jatropha curcas Linn.

Local name: Arand.

Occasional along the borders of fields: Bhrigukamandal. Fl. April-May, *Saxena* & *Khotele* 5926; *Khotele* 6856.

Kirgenella reticulata (Poir.) Baill.

Kapildhara, along river bank. A shrub with yellowish flowers. Fl. May, *Saxena* 5844 (?)

Mallotus philippensis (Lam.) Muell.-Arg.

Local name: Sondri.

Occasional in forest, Kapildhara, Mai-ki-Bagia. Fl. Nov., *Khotele* 5134; *Indorkar* 10770.

Phyllanthus debilis Buch.-Ham.

Occasional in forest, Sonmuda. Fl. Sept.-Oct., *Saxena* 2962, 4715, 6362; *Khotele* 10086.

P. fraternus Webster

P. niruri auct. non Linn.

Common in waste places. Fl. Sept.-Oct., *Saxena* 6346.

Phyllanthus urinaria Linn.

Occasional along waysides and in waste places. Fl. Sept.-Oct., *Saxena & Singh* 7713.

Ricinus communis Linn.

Local name: Arand.

Planted and often found as an escape.

ULMACEAE

***Celtis pentandra** Roxb.

Local name: Anjan.

Rare: Amarkantak, Shambhudhara, Mai-ki-Bagia. Fl. Oct., Fr. Jan.-May, *Saxena & Singh* 6383; *Khotele* 5123, 6004, 6153.

Trema orientalis (Linn.) Blume

Occasional in forest, Kabir. Fr. April, *Saxena* 4758, 10475; *Khotele* 6835.

URTICACEAE

Boehmaria scabrella (Roxb.) Gaud.

Common in valleys: Kabir, Kapildhara, Shambhudhara. Fl. Sept.-Oct., *Saxena* 4673, 2948; *Khotele* 10091.

Gerardiana palmata (Forsk.) Gaud.

G. heterophylla Decne.

Local name: Faskanandan.

Common in forest: Kapildhara. Fl. Sept.-Oct., *Saxena* 3839, 4945; *Saxena & Singh*. 6318, 6369; *Khotele* 10148.

Lecanthus wightii Wedd. Fl. Brit. Ind. in part.

L. peduncularis Wedd. pro parte

In moist and shady places, often on rocks-usually in valleys: Kapildhara, Shambhudhara. Fl. Sept.-Oct., *Saxena* 10157; *Saxena & Singh* 7773; *Saxena* 3557.

Pouzolzia pentandra (Roxb.) Benn.

Common along stream banks, Shambhudhara, Kapildhara. Fl. Oct.-Nov., *Saxena* 2948, 10200; *Saxena & Singh* 6357; *Khotele* 10123; *Indorkar* 10787.

MORACEAE

Ficus arnottiana Miq.

Local name: Pakar.

On way to Amanala. Fl. Jan., *Saxena* 4751.

F. bengalensis Linn.

Local name: Barh.

Occasional near habitations and in forest. Fl. & Fr. May, *Saxena & Khotele* 6002.

F. carica Roxb.

Planted. Fl. & Fr. April-May, *Saxena & Khotele* 5919; *Khotele* 6867, 10132.

F. hispida Linn. f.

Amanala. Fl. Jan., *Saxena* 4789; *Saxena & Khotele* 4936.

F. microcarpa Linn.

F. retusa auct. non Linn.

Common in forest in valleys. Fl. & Fr. May-Oct., *Saxena* 4669; *Saxena & Singh* 7464; *Saxena & Khotele* 5950.

F. racemosa Linn.

F. glomerata Roxb.

Local name: Dumar.

Occasional in forest: Shambhudhara. Fl. May. *Saxena* 4909; *Khotele* 6000.

F. religiosa Linn.

Amarkantak, occasional.

F. semicordata Buch.-Ham. ex J. F. Smith

F. cunia Buch.-Ham. ex Roxb.

Occasional in forest, Shambhudhara, Sonmuda, Kabir. Fl. May, *Saxena* 4697; *Saxena & Khotele* 5879.

F. virens Ait.

F. infectoria Willd.

F. infectoria (Miq.) Miq.

F. lacor auct. non Vera

Local name: Pakarh.

Common in forest, Kabir, Durgadhara, Mai-ki-Bagia, Panchdhara. Fl. April-May, *Saxena* 4676, 4743; *Saxena & Singh* 5968; *Singh* 7492; *Khotele* 5179.

Morus australis Poir.

M. indica auct. non Linn.

Kapildhara, apparently planted. Fl. April-May, *Saxena & Khotele* 5834; *Khotele* 5130; *Indorkar* 11161.

SALICACEAE

Salix tetrasperma Roxb.

Local name: Baijud.

Occasional along stream or river banks in valleys, Dudhara, Amadob. Fl. Oct.-Nov., *Saxena & Singh* 6386; *Khotele* 5102; *Indorkar* 11133.

HYDROCHARITACEAE

Vallisneria spiralis Linn.

Scarce, Shambhudhara, in stream. *Saxena* 10193.

BURMANNIACEAE

Burmannia coelestis D. Don

Occasional in open marshy places among grasses, along the river Narvada. Fl. Sept.-Oct., *Saxena* 2969, 6327.

ORCHIDACEAE

Aerides multiflorum Roxb.

Epiphyte. Fr. Oct. *Khotele* 6136.

Epipogon roseum (D. Don) Lindl.; Tiwari & Maheshwari in Indian For. 89: 431, 1963.

E. nutans Reichb. f.

Rare in sal forest on lateritic soil. Fl. Aug., (*Tiwari* l.c.).

Eulophia herbacea Lindl.

Local name: Bilaikand.

Kabir, in sal forest. *Shukla* 2642.

E. nuda Lindl.; Tiwari & Maheshwari in Indian For. 89: 433, 1963.

Frequent in sal forest and open forests on lateritic and sandy-loam soils. Fl. April-July, Fr. Aug., (*Tiwari*, l.c.).

Habenaria furcifera Lindl.

Occasional in forest, Shambhudhara. Fl. & Fr. Oct.-Nov., *Saxena* 10406; *Saxena* & *Singh* 7729.

Luisia teretifolia Gaud.

Epiphyte in forest, Sonmuda. *Khotele* 10094.

***L. trichorhiza** Blume

Occasional in tree trunks, Shambhudhara. Fr. May, *Saxena* & *Singh* 7416; *Saxena* & *Khotele* 5804.

****Malaxis mackinonii** (Duthie) Ames.

Microstylis mackinonii Duthie

Scarce in sal forest. Shambhudhara. Flowers mauve. Fl. Oct., *Saxena* 10172.

The flower colour is bright mauve in fresh sepcimens but fades to yellowish green in dried specimens. In this character it resembles with the Himalayan plant (*M. mackinonii*) and differs from *Microstylis cardonii* Prain which is reported to have yellowish green flowers. The latter species has thus not been included in the synonymy though Santapau and Kapadia in orchids of Bombay have merged the two species.

****Oberonia ensiformis** Lindl.

Panchdhara, epiphytic, scarce. Fl. Jan., *Saxena* 4736.

Peristylus constricta Lindl.

H. constricta Hk. f.

Occasional in forest, Fl. Sept.-Oct., *Saxena* 10158; *Khotele* 10040.

P. stocksii (Hk. f.) Kranz.

Amarkantak, rare in forest. Fl. Aug., *Shukla* 2655.

Platanthera susannae (Linn.) Lindl.

Habenaria susannae R. Br.

Shambhudhara, in forest. Fl. & Fr. Oct., *Saxena* 10401.

***Rhynchostylis retusa** Blume

Occasional epiphyte, Shambhudhara, Kabir. Fl. Jan., Fr. Oct., *Saxena* & *Singh* 7415.

Vanda parviflora Lindl.

Occasional epiphyte. Sonmuda. Fr. Sept., *Khotele* 10093.

MUSACEAE

Musa sapientum Linn.

Local name: Jangli Kela.

In deep shady valleys, Kabir, Amadob. Fr. Jan., *Saxena* 4683.

ZINGIBERACEAE

Costus speciosus Sm.

Local name: Keokand.

Occasional in open places, Kapildhara. Fl. Sept., *Saxena* 3562.

Curcuma angustifolia Roxb.

Local name: Tikhur.

Common in forest, Kabir. Fl. May, *Saxena* 3801; *Saxena* & *Khotele* 5944.

Globba bulbifera Roxb.

Common in forest undergrowth, usually in valleys: Kapildhara, Sonmuda, Mai-ki-Bagia. Fl. Aug.-Sept., *Saxena* 10153; *Khotele* 10039, 10072.

G. racemosa Sm.

Occasional in forest, Kabir. Fl. Aug.-Oct., *Shukla* 2653.

Hedychium coronarium Koenig.

Local name: Gulbakaoli.

Common in marshy places, usually planted: Kabir, Sonmuda. Fl. Sept.-Nov., *Saxena* & *Singh* 7737; *Khotele* 10050, 10079; *Indorkar* 10933.

Zingiber roseum Rosc.

Occasional in forest, usually in valleys, Kabir. Fl. Nov., *Indorkar* 10925.

HYPOXIDACEAE

Curculigo orchioides Gaertn.

Local name: Kali Musli.

Common in sal forest. Fl. May, *Khotele* 5935; *Shukla* 2631.

AGAVACEAE

Agave americana Linn.

Planted and found as escape.

AMARYLLIDACEAE

Crinum latifolium Linn.

Rare, Shambhudhara, in sal forest. Fl. May, *Saxena* & *Khotele* 5999.

DIOSCOREACEAE

Dioscorea belophylla Voight

Local name: Bitti Kanda.

Common in forest. Fl. Oct., *Saxena* 3553, 4605, 4698, 4701 ; *Saxena* & *Singh* 7709.

D. bulbifera Linn.

Common in forest and in thickets. Fl. Sept.-Oct., *Saxena* 3526 ; *Saxena* & *Singh* 7268.

D. hispida Denn.

Local name: Baichandi.

Rare in forest, Kabir.

D. oppositifolia Linn.

Occasional in forest. *Saxena* 4702 ; *Saxena* & *Singh* 7702 ; *Shukla* 2634.

D. pentaphylla Linn.

Local name: Barha Kand.

Occasional in forest, Kabir. Kapildhara. Fl. Oct., *Saxena* 10464 *Saxena* & *Singh* 6310.

LILIACEAE

Asparagus gracilis Royle

A. capitatus Baker

Occasional. Fl. Aug., *Shukla* 2625.

A. racemosus Willd.

Common in forest; Sonmuda, Amadob, Kapildhara. Fl. Oct., *Saxena* 10444 ; *Saxena* & *Singh* 6313, *Singh* 7733 ; *Khotele* 10028 ; *Indorkar* 11114.

Chlorophytum tuberosum Baker

Local name: Safed Musli.

Fairly common in forest undergrowth. Fl. May, Fr. Aug., *Saxena* 3851, 3552, 4714 ; *Saxena* & *Khotele* 5803 ; *Shukla* 2664, 2667.

Smilax prolifera Roxb.

Occasional in forest, Amadob. Fl. May, *Saxena* 4901 ; *Saxena* & *Khotele* 5949.

S. zeylanica Linn.

S. macrophylla Roxb.

Common in valleys, Kabir, Kapildhara. *Saxena* 3853, 4653, 4716 ; *Shukla* 2649.

PONTEDERIACEAE

Monochoria vaginalis Pers.

Kabir, subaquatic. *Saxena* & *Singh* 7437.

COMMELINACEAE

Commelina bengalensis Linn.

Fairly common weed. Fl. Sept.-Oct., *Khotele* 10006.

C. hasskarlii C. B. Cl.

Common in marshy places along Narvada. Fl. Sept.-Oct., *Saxena* 2926, 2954, 3560 ; *Khotele* 5976 ; *Indorkar* 11186.

C. paludosa Blume

C. obliqua Buch.-Ham. ex D. Don (non Vahl)

Mai-ki-Bagia. Fl. Sept., *Khotele* 10049.

C. undulata R. Br.

C. kurzii C. B. Cl. ; Tiwari & Maheshwari in Indian For. 91 : 583, 1965.

Amarkantak. Fl. & Fr. Oct., (*Tiwari* & *Maheshwari*, l.c.).

Cyanotis cristata (Linn.) D. Don

Fairly common in sheltered places along roadsides, water courses, crevices of rocks. Fl. Sept.-Oct., *Saxena* 2906, 3513, 10433, 10434.

Floscopa scandens Lour. ; Tiwari & Maheshwari in Indian For. 91 : 586, 1965.

Amarkantak. Fl. & Fr. Sept.-Feb., (*Tiwari* & *Maheshwari*, l.c.).

Murdannia nudiflorum (Linn.) R. Brenan

Aneilema nudiflorum R. Br.

Common in open moist grassy places, usually along stream and river banks. Fl. Oct., *Saxena* 10431 ; *Saxena* & *Singh* 6334.

M. scapiflora (Roxb.) Royle

Aneilema scapiflorum Wight

Occasional in forest, Kabir, Jaleshwar. Fl. May, Fr. Aug., *Khotele* 5904 ; *Shukla* 2644.

M. spiratum (Linn.) Brueckn.

Aneilema spiratum (Linn.) R. Br.

Occasional in forest. Shambhudhara. Fl. Oct., *Saxena* & *Singh* 7405.

M. vaginatum (Linn.) Bruck.

Aneilema vaginatum R. Br.

Shambhudhara. in forest. Fl. Sept.-Oct., *Saxena* 3546 ; *Saxena* & *Singh* 7409.

JUNCACEAE

Juncus prismatocarpus R. Br.

Occasional along river banks in marshy places among grasses. Fl. Nov., *Saxena* & *Khotele* 5860, 5985 (A) ; *Khotele* 5115 ; *Indorkar* 10951, 10959.

PALMACEAE

Phoenix acaulis Buch.-Ham. ex Roxb.

Local name: Bhuichhind.

Occasional in forest undergrowth.

P. sylvestris (Linn.) Roxb.

Local name: Chhind.

Rare: Bhrigukamandal.

ARACEAE

Amorphophalus bulbifer Blume

Kapildhara. *Saxena* 3837.

Arisaema tortuosum Schott

Common in forest, Kabir, Mai-ki-Bagia. Fl. Aug.-Sept., Fr. Nov.-Dec., *Shukla* 2643 ; *Indorkar* 10758.

Colocasia antiquorum Schott

Common in moist and shady places. Fl. Rainy season, *Saxena* 4664.

Plesmonium margaritiferum Schott

Occasional in shady places. Fl. Aug., *Shukla* 2618.

Remusatia vivipara (Lodd.) Schott

Occasional in moist places in forest, Sonmuda. Fl. Aug.-Sept., *Saxena* & *Singh* 7733; *Khotele* 10078.

POTAMOGETONACEAE

Potamogeton javanicus Hassk.

Occasional along river and streams, Narvada, Amadob. *Saxena* 4612; *Khotele* 5114; *Indorkar* 11131.

ERIOCAULACEAE

***Eriocaulon breviscapum** Koern.

Rare along riversides, partly in water. Fl. June, *Saxena* 4614.

E. polycephalum Hk. f.

Occasional in marshy places along Narvada. Fl. Sept., *Saxena* 2972.

E. quinquengulare Linn.

Common in marshy places. Fl. Sept., *Saxena* 3578.

***E. ritcheanum** Ruhl.

E. horsleykonde Fyson

Rare along the bank of Narvada, partly in water. Fl. Nov., *Indorkar* 10961.

E. seiboldianum Sieb. & Zucc.

Common in marshy places. Fl. Sept.-Oct., *Saxena* 10178.

CYPERACEAE

***Carex speciosus** Kunth

Occasional in moist places in forest, Shambhudhara. Fl. & Fr. Sept.-Jan., *Saxena* & *Singh* 3547, 4671, 7777, 10169; *Saxena* & *Khotele* 5812.

C. stramentitia Booth ex Boeck.

Kapildhara, along river bank. Fl. May, *Saxena* & *Khotele* 5836.

Cyperus alulatus Kern.

C. iria auct. non Linn.

Common weed. Fl. Sept.-Oct., *Saxena* 3809.

C. brevifolius (Rottb.) Hassk. subsp. **brevifolius**

Kyllinga brevifolia Rottb.

Occasional in waste places and along river banks in moist situations. Fl. Oct.-Nov., *Saxena* 2927; *Indorkar* 10964.

C. diaphanus Schrad. ex R. & S.

C. latespicatus C. B. Cl.

C. sanguinolentus Vahl

In moist places among grasses. Fl. & Fr. Sept.-Nov., *Saxena* 3580, 3581; *Indorkar* 10710, 10982, 10989.

C. distans Linn. f.

Shambhudhara, sub-aquatic. Fl. Oct., *Saxena* & *Singh* 7703.

C. exaltatus Retz.

Common along river and stream banks, sub-aquatic. Fl. Sept.-Nov., *Khotele* 10020; *Indorkar* 10976.

C. flavidus Retz. (non Fl. Brit. India)

C. globosus All. (non Forsk.)

Common along river banks, Narvada, Shambhudhara. Fl. Nov., *Indorkar* 10710, 10982, 10989.

C. paniceus (Rottb.) Boeck.

Mariscus paniceus Vahl

Common in forests, Kabir. Fl. Oct., *Saxena* 10471.

C. pilosus Vahl

Occasional in moist places. Fl. Sept.-Oct., *Saxena* 2966.

C. niveus Retz.

Common along river and stream banks. Fl. April-May, *Saxena* & *Khotele* 5825, 5990; *Khotele* 6820.

C. rotundus Linn.

Common in cultivated lands, along roadsides etc. Fl. April, *Saxena* 6870.

C. sanguinolentus Vahl

Along water courses. Fl. Sept., *Saxena* 3580.

C. tenuispica Steud.

C. flavidus auct. non Retz.; *sensu* C. B. Cl. in Fl. Brit. India.

In moist shady places, Sonmuda. Fl. Nov., *Indorkar* 10723.

Eleocharis congesta D. Don

Kapildhara, aquatic. Fl. Nov., *Indorkar* 10788, 10953.

Fimbristylis bisumbellata (Forsk) Bub.

F. dichotoma (non Vahl) *sensu* C. B. Cl. in Fl. Brit. India.

Common weed in moist places along stream banks, cultivated lands, roadsides etc. Fl. Sept.-Nov., *Saxena* 2982; *Khotele* 6169.

F. dichotoma (Linn.) Vahl (non C. B. Cl. in Fl. Brit. India)

F. diphylla (Retz.) Vahl

F. annua R. & S.

Common weed in cultivated ground, lawns, roadsides, stream banks etc. Fl. & Fr. Sept.-Nov., *Saxena* 3582, 3591.

Fimbristylis falcata (Vahl) Kunth
F. junciformis Kunth
Rare along stream banks, Jaleshwar. Fl. May, *Saxena & Khotele* 5892.

Lipocarpha chinensis (Osbeck) Kern.
L. argentea R. Br.
Occasional in marshy places among grasses along river banks, Kabir, Kapildhara. Fl. May-June, *Saxena* 3804; *Saxena & Khotele* 5827; *Khotele* 6127.

Rhynchospora submarginata Kunth
R. wightiana C. B. Cl. non Steud.
Rare along river Narvada in moist places. Fl. Sept., *Khotele* 2973.

Scirpus triangulatus Roxb.
S. mucronatus auct. non Linn.
Common along stream and river banks, Shambhudhara, Jaleshwar, Narvada. Fl. April-May, *Saxena* 3840; *Saxena & Khotele* 5884; *Khotele* 5154.

Scleria levis Retz.
S. hebecarpa Nees ex Wight
Occasional in forest, Kapildhara. Fl. Jan., *Saxena* 4644.

S. pergracilis (Nees) Kunth
Occasional along the banks of river Narvada. Fl. Sept., *Shukla* 2975.

S. psilorrhiza C. B. Cl.
Occasional in clearings of forest. Fl. Sept.-Oct., *Saxena* 2988; *Saxena & Singh* 7714.

GRAMINEAE

Alloteropsis semialata (R. Br.) Hitche
Rare along stream banks, Jaleshwar. Fl. April-May, *Saxena & Khotele* 5902.

Apluda mutica Linn.
Fairly common in grasslands, thickets etc. Fl. Oct.-Nov., *Saxena* 4770, 4744, 4765; *Saxena & Singh* 6399; *Indorkar* 10715, 10759, 10962, 11198; *Khotele* 5910, 10139.

Aristida cumingiana Trin. et Rupr.
Occasional in open wastelands. Fl. Nov., *Indorkar* 10715.

A. setacea Retz.
Occasional in open wastelands and in open forest. Fl. Nov., *Indorkar* 11198.

Arthraxon hookeri (Hack.) Henr.
Rare along stream banks, Shambhudhara. Fl. May, *Khotele* 5984.

A. lancifolius (Trin.) Hochst.
Common along waysides. Fl. Sept.-Oct., *Saxena* 3826; *Khotele* 10145.

A. quartinianus (A. Rich.) Nash
Fairly common in forest especially in valleys. Fl. Sept.-Nov., *Saxena* 2967, 2978, 3550, 3577; *Saxena & Singh* 6337, 6342, 7772; *Indorkar* 10968, 10929, 11119, 111128; *Khotele* 10010.

Arundinella pumlia (Hochst.) Steud.
Common in shady places: Dudhdhara, Kabir, Mai-ki-Bagia. Fl. Sept.-Nov., *Saxena* 4627; *Indorkar* 10776, 10937; *Khotele* 10012.

Bothriochloa glabra (Roxb.) A. Camus
Common in grasslands, Kapildhara. Fl. Sept., *Saxena* 3593; *Khotele* 5848.

B. grahmii (Haines) Bor
Amarkantak (*Bor*).

B. intermedia (R. Br.) A. Camus forma **punctata** A. Camus
Local name: Gaili.
Amarkantak. Fl. Jan., *Saxena* 4910.

B. kuntzeana (Hack.) Henr.
Kapildhara. Fl. Jan., *Saxena* 4746.

B. odorata (Lisboa) A. Camus
Occasional: Mai-ki-Bagia, Kabir. Fl. Oct.-Nov., *Khotele* 10143; *Indorkar* 10746, 10919.

B. pertusa (Linn.) A. Camus
Common in open pastures, waysides, wastelands etc. Fl. Sept.-Nov., Saxena 2930, 3814.

Capillipedium assimile (Steud.) A. Camus
Occasional in open forest and in open grasslands. Fl. Oct.-Jan., *Saxena* 4929, 6364.

C. huegelii (Hack.) Stapf
Dudhdhara. Fl. Nov., *Indorkar* 10735, 10775.

C. parviflorum (R. Br.) Stapf
Sonmuda. Fl. Nov., *Indorkar* 10732.

Chionachne koenigii (Spreng.) Thw.
Occasional in open grasslands along the river Narvada. Fl. Oct.-Nov., *Saxena* 10475; *Indorkar* 11136.

Coelachne simpliciuscula (W. & A.) Munro ex Benth.
Occasional along river and stream banks, Shambhudhara, Narvada. Fl. Oct.-Nov., *Saxena & Singh* 7785; *Indorkar* 10960.

Coix lacryma-jobi Linn.
Occasional in marshes along the banks of river Narvada. Fl. Sept.-Oct., *Saxena* 2953; *Khotele* 10027.

Cymbopogon martinii (Roxb.) Wats
Common in forest and in grasslands. Fl. & Fr. Sept.-Jan., *Saxena* 3517, 4773, 10404.

Cynodon dactylon (Linn.) Pers.
Common in lawns, waysides, cultivated lands etc. Fl. Dec.-June, *Saxena* 4794; *Khotele* 3590, 6158, 6887.

Dactyloctenium aegyptium (Linn.) P. Beauv.

Common along waysides and in waste places. Fl. Sept.-Nov., *Saxena* s.n.

Dichanthium annulatum (Forssk.) Stapf

Common along waysides and grasslands. Fl. Sept.-Dec., *Indorkar* 10928.

D. aristatum (Poir.) C. E. Hubb.

Common in waste places, Jaleshwar, Amadob, Durgadhara, Kapildhara. Fl. & Fr. Nov.-May, *Saxena* 4764, 4939, 5891; *Khotele* 6184; *Indorkar* 11140.

Digitaria adscendens (H. B. K.) Henr. subsp. **adscendens**

Common in wastelands along waysides. Fl. & Fr. Sept.-Dec., *Saxena* 3812, 3868, 4944; *Indorkar* 10744, 11113.

D. granularis (Trin.) Henr.

In waste places and along waysides. Fl. Sept.-Oct., *Saxena* 3868.

D. longiflora (Retz.) Pers.

Along roadsides and in waste places. Fl. Sept.-Oct., *Saxena* 3869.

D. sanguinalis (Linn.) Scop.

Along roadsides and in waste places. Fl. Sept.-Oct., *Saxena* 2924.

D. setigera Roth ex R. & S.

Occasional along roadsides and in waste places. Fl. May-June, *Saxena* & *Khotele* 5977.

Dimeria ornithopoda Trin. var. **genuina** Hack.

Along the banks of river Narvada. Fl. Oct.-Nov., *Indorkar* 10988.

Echinochloa colonum (Linn.) Link

Common along waysides, riversides, and in waste places. Fl. Sept.-Oct., *Indorkar* 10967, 11190.

E. stagnina (Retz.) P. Beauv.

Occasional along river and stream banks or ditches—subaquatic. Fl. & Fr. June-Nov., *Saxena* 2904; *Khotele* 6183; *Indorkar* 10984.

Eleusine indica (Linn.) Gaertn.

Common along waysides, in wastelands and in cultivated lands. Fl. Sept.-Nov., *Saxena* 2929, 4940, 10144; *Indorkar* 11187.

Eragrostiella bifaria (Vahl) Bor

Occasional along the banks of river Narvada, in moist situations. *Saxena* 3518, 3529; *Indorkar* 10969, 10981.

Eragrostis gangetica (Roxb.) Steud.

Common in open wet places among grasses. Fl. & Fr. Sept.-April. *Saxena* 2925, 2942, 4936; *Indorkar* 10712, 10982; *Khotele* 5178, 6832, 6888.

E. nutans (Retz.) Nees ex Steud.

Amadob. Fl. Nov., *Indorkar* 11112.

E. tenuifolia Hochst. ex Steud.

Occasional in forest: Sonmuda, Kapildhara. Fl. Nov., *Indorkar* 10705, 10706.

E. unioloides (Retz.) Nees ex Steud.

Common along waysides in waste places and along stream and river banks. Fl. Oct.-Nov., *Indorkar* 10947, 10449, 10965.

Eulalia trispicata (Schult.) Henr.

Rare. Fl. Oct., *Saxena* & *Singh* 6338.

Hackelochloa granularis (Linn.) O. Ktze.

Occasional along waysides in forest. Fl. Sept.-Oct., *Saxena* 2941.

Hemarthria compressa (Linn. f.) R. Br.

Mai-ki-Bagia. Fl. Sept., *Saxena* 2957, 3558.

Heteropogon contortus (Linn.) P. Beauv. ex R. & S.

Local name: Sukhara.

Fairly common in grasslands, along waysides etc. Fl. Sept.-Nov., *Saxena* 3572, 4967; *Saxena* & *Singh* 6339; *Indorkar* 10733.

Hymenachne pseudo-interrupta C. Muell.

Occasional in moist places in open grasslands along the river Narvada. Fl. Nov., *Indorkar* 10956, 10939, 11184.

Imperata cylindrica (Linn.) P. Beauv. var. **major** (Nees) C. E. Hubb. ex Hubb. & Vaughan.

Common in open grasslands, waste places. Fl. June-Sept., *Saxena* 3000; *Khotele* 6134.

Isachne globosa (Thunb.) O. Ktze.

I. australis R. Br.

Occasional along stream banks in forest. Fl. Oct.-Nov., *Saxena* 5975.

I. miliacea Roth

Amarkantak. Fl. Sept., *Saxena* 3566.

Ischaemum duthiei Stapf

Shambhudhara, Amadob. Fl. Oct.-Nov., *Saxena* 6358, 10187; *Indorkar* 11135.

I. rugosum Salisb.

Common: Kabir, Kapildhara. Fl. Oct.-Nov., *Saxena* 3587; *Saxena* & *Singh* 6352; *Indorkar* 10789, 10942; *Saxena* & *Khotele* 10137.

Iseilema prostratum (Linn.) Anderss.

Common in grasslands. Fl. Sept.-Nov., *Saxena* 3585; *Indorkar* 10711.

Manisuris clarkii (Hack.) Bor

Rare: Kapildhara, Amadob. Fl. Oct.-Nov., *Saxena* 10154; *Saxena* & *Singh* 6375; *Indorkar* 11118.

Mnesithea laevis (Retz.) Kunth

Rare, Kapildhara, Amadob. Fl. Nov., *Indorkar* 10794, 11127.

Oplismenus burmanii (Retz.) P. Beauv.

Common along waysides in forest. Fl. Oct., *Khotele* 10135.

O. compositus (Linn.) P. Beauv.

Common in forest. Fl. Sept.-Nov., *Saxena* 3875, 6363; *Indorkar* 10790, 10935; *Khotele* 10089.

Oryza rufipogon Griff.

O. sativa var. *rufipogon* Watt.

Local name: Pasaidhan.

Wild along ditches. Fl. Oct., *Saxena* 6353.

Panicum austro-asiaticum Ohwi

Along the banks of Narvada. Fl. Nov., *Indorkar* 10948.

P. notatum Retz.

Occasional: Sonmuda, Kabir. Fl. Oct.-Nov., *Saxena* 10454; *Indorkar* 10730.

P. psilopodium Trin.

Occasional in forests. Fl. Sept.-Oct., *Saxena* 2920, 2980.

P. repens Linn.

Occasional along the banks of rivers, subaquatic. Fl. Sept.-Oct., *Saxena* 2952.

P. sumatrense Roth

Occasional in forest, Amanala. Fl. May-Oct., *Khotele* 5907; *Singh* 7427.

P. trypheron Schult.

Occasional in forest. Fl. Sept., *Saxena* 2981.

Paspalidium flavidum (Retz.) A. Camus

Occasional in moist places, often along stream and river banks. Kapildhara. Fl. Oct.-Nov., *Indorkar* 10938.

Paspalum orbiculare Forst.

Dudhdhara, along river banks. Fl. & Fr. May-Sept., *Saxena* 3567; *Saxena* & *Khotele* 5862.

P. commersonii Lam.

Common along waysides, stream banks, in cultivated ground etc. Fl. Sept.-Nov.

P. vaginatum Swartz.

Along river banks, Sonmuda. Fl. Jan., *Khotele* s.n.

Pennisetum hohenackeri Hochst ex Steud.

Occasional in forest, Kapildhara. Fl. Oct., *Saxena* & *Singh* 6301; *Indorkar* 10966.

Pogonatherum paniceum (Lam.) Hack.

Common in valleys on hillsides, along stream banks among rocks, Kapildhara, Shambhudhara. Fl. Nov., *Khotele* 5169, *Indorkar* 10784.

Pseudopogonatherum contortum Brongn.

Pollinia articulata Trin.

Kapildhara, Sonmuda. Fl. Nov., *Indorkar* 10722, 10793.

Rottboellia exaltata Linn. f.

Occasional in forest, Mai-ki-Bagia. Fl. Sept.-Nov., *Saxena* 3505; *Indorkar* 10744.

Saccharum spontaneum Linn.

Common in grasslands, often along stream banks. Fl. Oct.-Nov., *Saxena* & *Singh* 6305, 6559; *Indorkar* 11137.

Sacciolepis indica (Linn.) A. Chase

Common in wet places often along river banks, Kapildhara, Kabir, Narvada. Fl. Nov., *Indorkar* 10724, 10791, 10943, 10957, 10979.

S. myosuroides (R. Br.) A. Chase

Common along river and stream banks—subaquatic. Fl. Sept.-Nov., *Saxena* 3570; *Indorkar* 10725, 10792, 10941, 10950, 10963.

Schizachyrium brevifolium (Sw.) Nees ex Buse

Rare, Amadob Road. Fl. Nov., *Indorkar* 11120.

Setaria homonyma (Steud.) Chiov.

Occasional in forest. Fl. Sept., *Saxena* 3823, 63301, 2922, 10456; *Saxena* & *Singh* 6360, 6361.

S. italica (Linn.) P. Beauv.

Cultivated. Fl. Oct., *Saxena* & *Singh* 7428.

S. pallide-fusca (Schum.) Stapf & C. E. Hubb.

Fairly common. Fl. Sept.-Nov., *Saxena* 2949, 2977, 4795, 10191; *Khotele* 6133; *Indorkar* 10703, 10706, 10721, 11109.

S. tomentosa (Roxb.) Kunth

Common in waste places and along river and stream banks, Durgadhara, Mai-ki-Bagia. Fl. Sept.-Nov., *Saxena* 2921, 4795, 4946; *Indorkar* 10745; *Saxena* & *Khotele* 5931.

Sorghum halepense (Linn.) Pers.

Common in forest, often on hillsides in valleys. Fl. & Fr. Sept.-Nov., *Saxena* 4757; *Khotele* 10055; 10119.

S. nitidum (Vahl) Pers.

Local name: Bharua.

Occasional in forests. Fl. & Fr. Nov.-Jan., *Saxena* 4768.

Spodiopogon rhizophorus (Steud.) Pilger

S. albidus Benth.

Occasional along stream and river banks—subaquatic, Dudhdhara. Fl. Oct.-Nov., *Singh* 7485; *Indorkar* 10779.

Sporobolus diander (Retz.) P. Beauv.

Common along waysides, in grasslands, lawns etc. Fl. Sept.-Oct., *Saxena* 3586.

S. indicus auct. non (Linn.) R. Br.

Amadob. Fl. Sept.-Nov., *Saxena* 3555; *Indorkar* 11121.

Themeda quadrivalvis (Linn.) O. Ktze.

Common in open forests and in grasslands. Fl. Nov., *Indorkar* 10760, 10929.

T. triandra Forssk.

Common in grasslands: Kapildhara, Kabir. Fl. & Fr. April-Nov., *Saxena* 3589, 3592, 4668, 4745, 4756; *Saxena & Singh* 6304.

Thysanolaena maxima (Roxb.) O. Ktze.

Common shady valleys. Fl. Jan.-May, *Saxena* 4608, 4659; *Saxena & Khotele* 5849.

Urochloa panicoides P. Beauv. var. **panicoides**

Occasional in moist places. Fl. & Fr. Sept.-Jan., *Saxena* 3809, 4908.

BAMBUSACEAE

Dendrocalamus strictus (Roxb.) Nees

Rare in forest. *Khotele* s.n.

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